

April 1, 2024

CURRICULUM VITAE

Yu Shyr, PhD

PRESENT POSITIONS

Chair

Department of Biostatistics
Vanderbilt University Medical Center

Harold L. Moses Chair in Cancer Research

Vanderbilt University Medical Center

Director

Center for Quantitative Sciences (CQS)
Vanderbilt University Medical Center

Director

Vanderbilt Technologies for Advanced Genomics Analysis and
Research Design (VANGARD)
Vanderbilt University Medical Center

Associate Director for Quantitative Sciences

Vanderbilt-Ingram Cancer Center
Vanderbilt University Medical Center

Professor

Department of Biostatistics
Department of Biomedical Informatics
Department of Health Policy
Vanderbilt University Medical Center

Associate Editor for Statistics

JAMA Oncology

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EDUCATION

1981–1985

BB, Statistics
Tamkang University (Taiwan)

1987–1989

MS, Statistics
Michigan State University

1989–1994

PhD, Biostatistics
University of Michigan, Ann Arbor
Dissertation: Some Aspects of Canonical Correlation Analysis

EXPERIENCE

- 1988–1989 **Graduate Student Teaching Assistant (GSTA)**
Department of Statistics, Michigan State University
- 1989–1994 **Graduate Student Research Assistant (GSRA)**
Department of Biostatistics, University of Michigan
- 1990 **Research Associate, Institute of Gerontology**
University of Michigan
- 1991–1992 **Research Associate, Department of Periodontics/Prevention/Geriatrics**
School of Dentistry, University of Michigan
- 1993–1994 **Adjunct Lecturer**
Department of Biostatistics, University of Michigan
- 1994–1998 **Chief Biostatistician, Vanderbilt-Ingram Cancer Center**
Vanderbilt University School of Medicine
- 1994–1999 **Assistant Professor of Biostatistics**
Department of Preventive Medicine, Vanderbilt University School of Medicine
- 1997–1998 **Consultant**
Lexicon Genetics, Inc.
- 1997–2000 **Consultant**
Applied Medical Research, Inc.
- 1998–2014 **Director, Biostatistics Shared Resource**
Vanderbilt-Ingram Cancer Center, Vanderbilt University School of Medicine
- 1999–2002 **Associate Professor of Biostatistics**
Department of Preventive Medicine, Vanderbilt University School of Medicine
- 2000 **Acting Director, Division of Biostatistics**
Department of Preventive Medicine, Vanderbilt University School of Medicine
- 2000 **Chair Professor of Statistics**
Tamkang University (Taiwan)
- 2001–2013 **Faculty, Center for Technology-Guided Therapy**
Vanderbilt University School of Engineering
Vanderbilt University Medical Center
- 2001–2012 **Director, Biostatistics Core**
Lung Cancer Specialized Programs of Research Excellence (SPORE)
Vanderbilt University School of Medicine
- 2001–present **Director, Biostatistics and Bioinformatics Shared Resource Core**
Meharry-Vanderbilt-Tennessee State Cancer Partnership
- 2002–present **Director, Biostatistics and Bioinformatics Core**
GI Cancer SPORE, Vanderbilt University Medical Center
- 2003–present **Director, Biostatistics and Bioinformatics Core**
Breast Cancer SPORE, Vanderbilt University Medical Center
- 2003–2013 **Professor of Biostatistics**
Department of Preventive Medicine, Vanderbilt University School of Medicine
- 2003–present **Professor**
Department of Biostatistics, Vanderbilt University Medical Center
- 2003–2013 **Ingram Professor of Cancer Research**
Vanderbilt University School of Medicine

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| 2004–2006 | Consultant CooperSurgical, Inc. |
| 2005–2012 | Adjunct Professor Tokai University School of Medicine (Japan) |
| 2006–2017 | Chief, Division of Cancer Biostatistics Department of Biostatistics, Vanderbilt University Medical Center |
| 2006–2018 | Invited Professor Shanghai Center for Bioinformatics Technology (China) |
| 2006–2014 | Affiliate Professor Department of Statistics, National Cheng Kung University (Taiwan) |
| 2007–2011 | Director, Cancer Biostatistics Center Vanderbilt-Ingram Cancer Center, Vanderbilt University Medical Center |
| 2007–2009 | Consultant Westat, Inc. |
| 2009–present | Associate Director for Quantitative Sciences Vanderbilt-Ingram Cancer Center, Vanderbilt University Medical Center |
| 2009–2012 | Director Statistical Center, Sentinel Node Oncology Foundation (SNOF) |
| 2009–2014 | Voting Member, Anti-infective Drugs Advisory Committee US Food and Drug Administration (FDA) |
| 2010–present | Consultant GlaxoSmithKline Oncology |
| 2011–2017 | Visiting Chair Professor, Department of Bioinformatics and Biostatistics Shanghai Jiao Tong University (China) |
| 2011–present | Director Center for Quantitative Sciences, Vanderbilt University Medical Center |
| 2011–2017 | Professor Department of Cancer Biology, Vanderbilt University School of Medicine |
| 2011–present | Professor Department of Biomedical Informatics, Vanderbilt University Medical Center |
| 2012–present | Director, VANGARD Vanderbilt University Medical Center |
| 2013–present | Harold L. Moses Chair in Cancer Research Vanderbilt University Medical Center |
| 2013–present | Professor Department of Health Policy, Vanderbilt University Medical Center |
| 2014–2019 | Director, Quantitative Sciences Shared Resource Vanderbilt-Ingram Cancer Center, Vanderbilt University Medical Center |
| 2014–present | Visiting Distinguished Chair Professor Department of Statistics, National Cheng Kung University (Taiwan) |
| 2014–present | Consultant Janssen Pharmaceuticals (Johnson & Johnson), Inc. |
| 2014–present | Consultant Roche U.S. Pharmaceuticals, Inc. |
| 2014–2015 | Consultant ACR Biologics, LLC |

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| 2015–present | Consultant Novartis Pharmaceuticals Corporation |
| 2015–present | Steering Committee Member Advanced Computing Center for Research Education (ACCRES) Vanderbilt University |
| 2016–present | Consultant Center for Drug Evaluation and Research (CDER), FDA |
| 2017–present | Chair Department of Biostatistics, Vanderbilt University Medical Center |
| 2018–present | Training Faculty Member Program in Cancer Biology, Vanderbilt University School of Medicine |
| 2019–present | Director, Data Science Shared Resource Vanderbilt-Ingram Cancer Center, Vanderbilt University Medical Center |
| 2020–present | Consultant Mustang Bio, Inc. |
| 2021–present | Chair Professor of Health Data Science Taipei Medical University (Taiwan) |
| 2023 | Founding Director Vanderbilt Biostatistics Data Coordinating Center |

HONORS

1. American Statistical Association Chapter Service Recognition Award, 2000
2. Vanderbilt University School of Medicine Master of Science in Clinical Investigation Program Excellence in Teaching Award, 2002, 2003, 2004
3. Distinguished Alumni Award, Department of Statistics, Tamkang University, 2008
4. Fellow, American Statistical Association, elected 2010
5. Highest-Rated Lecture, AACR/ASCO Methods in Clinical Cancer Research Workshop, Vail, Colorado, 2010, 2012, 2013, 2014, 2016
6. Scientific Review Committee Award for Exceptional Service and Dedication, Vanderbilt-Ingram Cancer Center, 2011
7. Jacek Hawiger Award for Excellence in Teaching Graduate Students and Postdoctoral Fellows in the Classroom, Lecture, or Small Group Setting, Vanderbilt University, 2012
8. Member, Academy for Excellence in Education, Vanderbilt University School of Medicine, elected 2013
9. Gold Eagle Distinguished Alumni Award, Tamkang University, 2015
10. Merrill J. Egorin Outstanding Mentor Award, AACR/ASCO Methods in Clinical Cancer Research Workshop, Vail, CO, 2016
11. Fellow, American Association for the Advancement of Science (AAAS), elected 2016
12. Outstanding Reviewer, *Cancer* (top 2% of reviewers), 2015–2018
13. Outstanding Biostatistician Mentor Award, ECCO-AACR-EORTC-ESMO Workshop on Methods in Clinical Cancer Research, Zeist, Netherlands, 2018, 2019
14. Chang Wen Bao Honor Lecture Award, 2018
15. Honorary Doctoral Degree, National Cheng Kung University, 2018
16. Fellow, American Association for Cancer Research, elected 2022

PROFESSIONAL SOCIETIES

1. American Statistical Association (ASA)
2. American Association for the Advancement of Science (AAAS)
3. American Association for Cancer Research (AACR)
4. American Society for Clinical Oncology (ASCO)
5. European Society for Medical Oncology (ESMO)
6. International Biometric Society (IBS)
7. Institute of Mathematical Statistics (IMS)

8. Royal Society of Medicine (RMS)
9. Society for Clinical Trials (SCT)
10. Society for Epidemiologic Research (SER)
11. International Chinese Statistical Association (ICSA)
12. International Association for the Study of Lung Cancer (IASLC)

TEACHING: CLASSES, WORKSHOPS, SEMINARS, AND INVITED TALKS

A. At Vanderbilt

Vanderbilt-Ingram Cancer Center

Seminars

1. "Statistical Power and Sample Size Calculations," 1995
2. "The Analysis of Lifetime Data," 1995
3. "Analysis of Epidemiologic and Clinical Data," 1995
4. "Fundamentals of Clinical Trials," 1995
5. "Statistical Class-Prediction Model," 2001
6. "A Software Package for MALDI-TOF / Microarray Data Analysis," Cancer Proteomics & Genomics Program Seminar, 2005

On-Demand Course

7. "Data-Science Shared Resource (DSSR) Bioinformatics," 2022

Department of Preventive Medicine

Lectures

8. "Statistics and Epidemiology," 1995–1999
9. "Clinical Trials," 1998–2008
10. "Statistics in Medical Literature," 1999–2000

Seminars

11. "Statistical Issues and Analyses of a Study of the Use of Condoms in Urban, Low-Income, Minority Youth," 1994
12. "Longitudinal Analysis of Sinusoidality of Time-Qualified Data," 1996
13. "Statistical Issues and Analyses of a Study of the Risk Factors for Hospitalization in Well-Dialyzed Chronic Hemodialysis Patients," 1997
14. "Sample Size Determination for the Two-stage Design of a Phase II Cancer Clinical Trial with Correlated Unbalanced Binary Endpoints," 1998
15. "Dose Modification in a Phase II Clinical Trial with Toxicity Endpoints: Statistical Strategies for Analysis," 2000
16. "Randomized Controlled Trials," 2009, 2011–2012

Cancer Biostatistics Workshop, 1996–2001

Master of Public Health (MPH) Program Courses

17. "Clinical Trials" (MSCI 514-5504), 1996, 1998, 2000–2010
18. "Biostatistics I" (MPH 544-5502), 2012–2019

Department of Biomedical Informatics

Lectures

19. "Cluster Analysis," 2002
20. "Statistical Methods for Genomic/Proteomic Pattern Studies," 2002

Seminar

21. "Analysis of RNA Expression Patterns in Human Lung Cancer Using Flexible Compound Covariate Method," 2002

Master of Science in Clinical Investigation (MSCI) Program

Courses

22. "Clinical Trials" (MSCI-5504), 2003–2008, 2010–present
23. "Big Data in Biomedical Research" (MSCI-5033), 2015–present

Lecture

24. "Bioinformatics & Biostatistics in Clinical Proteomics Research," 2008

Department of Biostatistics Seminars

25. "Weighted Flexible Compound Covariate Method for Microarray and MALDI-TOF-MS Data Analysis," 2004
26. "On Mass Spectrometry Data Preprocessing Using Mathematical Tools and Statistical Techniques," 2004
27. "Biostatistics for Regulators and Politicians: Why Statisticians Need to Be Activists," 2010
28. "How to Consult Efficiently with Investigators – A Case Study of Clinical Trials," 2007
29. "Challenges and Opportunities for Biostatisticians: Why Biostatisticians Need to Be Activists!" 2011
30. "Emerging Methods in Biostatistics and Data Science: Prospects for the Future of Precision Medicine," 2016
31. "Analytical Challenges and Tasks for Big Data in Biomedical Research," Lightning Round Talks, 2016
32. "Stretching the Limits of Statistics: Integrative Data Science for the Precision Medicine Era," 2017
33. "Big Data, Smart Data, and Actionable Data in Precision Medicine," 2018
34. "A Novel Adjustment Method for Cox Proportional Hazards Model in Data with Long-Term Survival," 2019

Interdisciplinary Graduate Program Courses

35. "Statistical Analysis for High Dimensional Data," 2005
36. "Clinical Trials," 2012–2013

CRC Research Skills Workshops

37. "Clinical Trial Design," 2006, 2009–2010
38. "Interim Analysis in Clinical Trials," 2006
39. "Randomization in Clinical Trials," 2006

Eskind Biomedical Library Training Program Courses

40. "Clinical Trials," 2008
41. "Advanced Data Analysis with Case Studies," 2011
42. "Advanced Statistical Bioinformatics for Omics Research," 2012
43. "Meta-Analysis," 2013

Other

44. "Using and Understanding Medical Statistics," Department of Surgery Resident Training, 1997
45. "Understanding, Applying, and Not Misusing the Survival Analysis Techniques in Clinical Trials," Medical Oncology Division Seminar, 1997
46. "Statistical Methods for the Analysis of Biomedical Data," Nephrology Clinical Journal Club, 1997
47. "Statistical Issues in Clinical Research," Department of Surgery Resident Training, 2000
48. "Statistical Cluster Analysis for Gene-Expression Profiles," Bioinformatics Gene Expression/Proteomics Analysis Seminar, 2001
49. "An Introduction to Cluster Analysis," Statistical Genomics: Making Sense of All the Data Workshop, 2001
50. "Statistical Methods for Health Sciences," Nephrology Clinical Conference, 2001
51. "Fundamentals of Clinical Trials," Nephrology Clinical Conference, 2001
52. "Statistical Issues in Data Safety and Monitoring Committee," General Clinical Research Center (GCRC), 2001
53. "Applying Cluster Analysis in Proteomics Research," Proteomics Conference Workshop, 2002
54. "Design, Analysis and Interpretation of Microarray Data," Clinical Pharmacology Grand Rounds, 2002

55. "Statistical Methods for the Analysis of Microarray Data," Nephrology Clinical Conference, 2003
56. "Data Reduction Approaches for High Dimensional Data Derived from High Throughput Assays," Meharry Medical College/Vanderbilt-Ingram Cancer Center 5th Annual Retreat & Mini Symposium, 2004
57. "Data and Safety Monitoring: A Consumer's Guide," Clinical Pharmacology Grand Rounds, 2005
58. "On Actuarial Models and Survival Analysis for Cancer Patients," Math Club Seminar, 2005
59. "Recent Development of Mass Spectrometry Data Processing Using Mathematical Tools and Statistical Techniques," VICC and UABCC Inter-SPORE Biostatistics/Bioinformatics Workshop, 2005
60. "A Software Package for MALDI-TOF MS Data Preprocessing and Statistical Analysis," Mass Spectrometry Research Center Seminar, 2005
61. "On Mass Spectrometry Data Preprocessing in Cancer Study," Biomath Study Group Seminar, 2005
62. "Some Statistical Aspects of Oncology Phase II Trials," Department of Medicine Seminar, 2006
63. "Novel Statistical Methods for Omics Research," Lung Cancer Program Retreat, 2007
64. "Biomathematics & Bioinformatics in Tumor Micro-Environment Research," Tumor Micro-Environment Network (VUTMEN) Seminar, 2007
65. "Statistical Issues in Clinical Trials," Division of Hematology/Oncology Seminar, 2007
66. "Randomized Clinical Trials," Internal Medicine Resident Course, 2012
67. "Bioinformatics," CQS Summer Institute, 2014
68. "Big Data in Biomedical Research," CQS Summer Institute, 2015–present
69. "Randomized Clinical Trials," Department of Medicine Clinical Investigator Toolbox, 2016
70. "Emerging Methods in Data Science: Prospects of Precision Medicine," Pulmonary Grand Rounds, 2017
71. "FDA Review of Human Clinical Trials," Introduction to Clinical and Translational Research VICTR Course, 2017
72. Statistics tutorial, SyBBURE-Searle Program, 2017
73. Chair, Lightning Round, Data Science Visions Working Group, Data Science Symposium 2018.
74. "Big Data, Smart Data, Actionable Data in Precision Medicine," Section of Surgical Sciences, 2018
75. "Big Data, Smart Data, Actionable Data in Precision Medicine," Diabetes Research & Training Center, 2018
76. "Data Science and Biomedical Research," Department of Radiology & Radiological Sciences, 2019
77. "Overview of Dose Finding Designs for Phase I Clinical Trials," Division of Hematology and Oncology Journal Club, 2021
78. "What Keeps Me Awake at Night with ChatGPT," Ethical Healthcare through Innovations in Biostatistics: Advancing Informative Analysis, Data Coordination, and Health Equity (Department of Biostatistics 20th anniversary symposium), 2023

B. Keynote Speeches

1. Taiwan Biotechnology Symposiums, 2000
2. Meeting of the Louisiana Chapter of the American Statistical Association, 2003
3. Biostatistics and Bioinformatics Workshop in High-Dimensional Data Analysis, Taipei, 2008
4. Japan Symposium on Innovation in Medical Research and Ethical Challenges, Tokyo, 2010
5. International Conference on Applied Statistics, Taipei, 2011
6. "Big Data, Omics, and Precision Medicine in Cancer." 2nd International Conference on Translational Cancer Research, Tianjin, China, 2016
7. 27th Taiwan Statistics Conference, 2017
8. Taiwan Statistical Association Annual Meeting, 2018
9. 11th Formosan Medical Association—Taiwan Medical Week, Taipei, 2018
10. Supercomputing Asia Conference, Singapore, 2019
11. Chinese Society of Therapeutic Radiation Oncology (CSTRO) 16th Annual Meeting, Shenzhen, China, 2019
12. Multiomics and Precision Medicine Conference, Tainan, Taiwan, 2019
13. International Symposium on Application of Big Data in Prevention and Treatment of Cancer, Taiwan, 2020
14. Biobank Association Annual Meeting, Taiwan, 2020
15. International Conference on Recent Advances in Precision Medicine and Public-Private Partnership, Taiwan, 2021

16. "From Data Science to Data Intelligence—New Developments in Precision Medicine." Multiomics and Precision Medicine Joint Conference, Taipei, 2022
17. "Future of Investigational Medicine and Smart Data—What We Learned from ChatGPT." Taiwan Bureau of Foreign Trade Health+ Conference: Redefining the Digitalization of Future Healthcare, Taipei, 2023

C. Courses, Workshops, Seminars, and Invited Talks at Other Universities and Institutions

1. "Computer Packages" (BIOS 511). Course, University of Michigan, Ann Arbor, 1993, 1994
2. "Longitudinal Categorical Data Analysis Using Generalized Linear Models." Seminar, University of Pennsylvania, Philadelphia, 1994
3. "Some Aspects of Canonical Correlation Analysis." Seminar, Syntex Labs, 1994
4. "Incomplete Longitudinal Data Analysis Using Generalized Linear Models." Seminar, Middle Tennessee State University for the Middle Tennessee Chapter of the American Statistical Association, Murfreesboro, 1995
5. "Redundancy Analysis and Its Application to Canonical Analysis of More than Two Vector Variables." Seminar, Tamkang University, Taipei, 1995
6. "The Role of the Statistician in the Medical Research." Seminar, Tzu Chi Medical College, and National Tung Hua University, Hualien, Taiwan, 1995
7. "A Formula for a Missing Plot in a General Incomplete Block Design, When Recovery of Inter-block Information Is Used." Seminar, National Cheng Kung University, Tainan, Taiwan, 1995
8. "Statistical Strategies for Modeling the Quasi-Sinusoidality for Time-Qualified Data." Presentation, Technical University, Graz, Austria, 1999
9. "Weighted Three-Stage Cosigner Analysis of Quasi-Sinusoidality of Time-Qualified Data." Seminar, Tamkang University, Taipei, 1999
10. "Study Design and Statistical Issues in Clinical Trials." Clinical Trials Protocol Training Course, Bristol-Myers Squibb Inc., Princeton, Wallingford, and Brussels, 2000
11. "Statistics with Applications to the Clinical Trials." Lecture, Tamkang University, Taipei, 2000
12. "Statistics in Modern Molecular Biology: Protein and RNA Analysis." Lecture, Tamkang University, Taipei, 2000
13. "Statistical Methods in Longitudinal Data Analysis." Lecture, Tamkang University, Taipei, 2000
14. "Clustering Methods for the Analysis of Microarray and Protein Expression Data." Workshop given at the University of Alabama Comprehensive Cancer Center, Birmingham, 2001
15. Lecture, Joint Statistical Meetings (JSM) Invited Sessions Program, 2001
16. "Analysis of cDNA Microarray Expression Data in Human Lung Cancer Using Statistical Classification Model." Lecture, University of Alabama Comprehensive Cancer Center, Birmingham, 2001
17. International Chinese Statistical Association: Section on Recent Statistical Research in Cancer Studies: Invited Speaker, Philadelphia, 2002
18. "Statistical Methods for Analyzing the Microarray and Protein Expression Profile Data in Lung Cancer." Lecture, University of Colorado (Lung SPORE meeting), Denver, 2002
19. "Analysis and Interpretation of Array Data." Lecture, Education Session of Array and Gene Expression, 93rd American Association for Cancer Research Annual Meeting, San Francisco, 2002
20. "Analysis of RNA Expression Patterns in Human Lung Cancer Using Flexible Compound Covariate Method." Lecture, Department of Biostatistics, School of Public Health, University of Alabama, Birmingham, 2002
21. "Analysis and Interpretation of Microarray Data." Lecture, British Columbia Cancer Research Center, Vancouver, 2002
22. "Weighted Flexible Compound Covariate Method for Classifying Microarray Data." Lecture, National Health Research Institutes, Taipei, 2002
23. "Design, Analysis and Interpretation of Microarray/MALDI-TOF Data." Lecture, Taipei Veterans General Hospital, 2002
24. "Basic Study Design in Clinical Trials," "Bias Reduction in Clinical Trials," and "Trial Setup/Monitoring Considerations in Clinical Trials." Courses, Bristol-Myers Squibb Protocol Training (online), 2002
25. "Quality Filtering: Critical Appraisal and Synthesis of Biomedical Literature." Continuing education lecture, Medical Library Association Annual Meeting, San Diego, 2003
26. "Statistical Methods for Genomic/Proteomic Pattern Studies." Lecture, Symposium of Molecular Taxonomy of Lung Cancer, 10th World Conference on Lung Cancer, International Association for the Study of Lung Cancer: Vancouver, 2003

27. "Tumor Proteomic/Genomic Patterns Predict Classification and Tumor Behavior in Human Non-small Cell Lung Cancer." Seminar, Pennington Biomedical Research Center, Baton Rouge, 2003
28. "Statistical Issues in the Era of Proteomics and Genomics Research." Lecture, GI/Pancreas Inter-SPORE Meeting, Nashville, 2004
29. "Statistical Issues in the Combinations of the Targeted Therapies in Lung Cancer." Lecture, Targeted Therapies for the Treatment of Lung Cancer Investigators' Meeting, San Diego, 2004
30. "Bioinformatics Tools for High Dimensional Data Analysis." Seminar, Division of Biostatistics of the National Health Research Institutes, Taiwan, 2004
31. "Analysis of Complex, Multivariate laboratory Data in Epidemiologic Research." Lecture, International Epidemiology Institute Course on Molecular Epidemiology, Nashville, 2004
32. "Biostatistical Analyses of Proteomic and Microarray Data." Lecture, International Epidemiology Institute Course on Molecular Epidemiology, Nashville, 2004
33. "Misclassification, Multiple Comparisons, and Sample Size Requirements." Lecture, International Epidemiology Institute Course on Molecular Epidemiology, Nashville, 2004
34. "The Challenges of the Statistical Design, Analysis, and Interpretation for High Dimensional Data." Lecture, Joint NCI-FDA Workshop on Research Strategies, Study Design and Statistical Approaches to Biomarkers Validation for Cancer Diagnosis and Detection, Washington, DC, 2004
35. "Clinical Trials." AACR/ASCO Methods in Clinical Cancer Research Workshop, Vail, CO, 2004–2007
36. "Data Reduction Approaches for High Dimensional Data Derived from High Throughput Assays." Lecture, International Society for Biological Therapy of Cancer 19th Annual Meeting, San Francisco, 2004
37. "Design and Analysis of Phase II Clinical Trials." Lecture, Meharry Medical College MPH Program, Nashville, 2005
38. "Recent Development of Computational Research in Quantitative Biomedical Science: A Software Package for MS MALDI-TOF Data Processing." Seminar, EPSCOR Mini-symposium, Murfreesboro, TN, 2005
39. "Mass Spectrometry Data Processing Using Wavelets." Lecture, AMS Spring Southeastern Sectional Meeting, Bowling Green, KY, 2005
40. "Bioinformatics Tools for Analyzing the Genomic/Proteomic Data." Lecture, Mouse Models of Human Cancers Consortium Annual Meeting, Nashville, 2005
41. "Bioinformatics, Biostatistics and Biomarkers." Lecture, Mathematical Biosciences Institute (MBI) Workshop—Genomics, Proteomics, and Bioinformatics—Biomarkers in Cancer Research, Columbus, OH, 2005
42. "The Statistical Challenges for Genomic/Proteomic Data Analysis." Lecture, ICSA Applied Statistics Symposium, Washington, DC, 2005
43. "Bioinformatics/Statistics/Mathematics and High Dimensional Data—From Genomic to Proteomic Research." Lecture, Shanghai Cancer Research Center, Shanghai, 2005
44. "Science of Doing Science Biostatistics/Bioinformatics." Seminar, UT Southwestern Medical Center, Dallas, 2005
45. "Conquering Colorectal Disparities: Molecular Techniques & Examples of How They Can Be Used to Address Cancer Disparities." Lecture, Meharry-Vanderbilt Alliance, Franklin, TN, 2005
46. "MALDI TOF MS Data Processing Using Wavelets, Splines, and Statistical Techniques." Lecture, AMS Sectional Meeting, Western Kentucky University, Bowling Green, 2005
47. "Biostatistical and Bioinformatics Approaches in High Dimensional Data Derived from High Throughput Assays: A Consumer Guide." Tutorial, 4th Asia Pacific Bioinformatics Conference, National Taiwan University, Taipei, 2006
48. "Statistical Challenges for Case-Cohort Study." Seminar, Danish Cancer Society, Copenhagen, 2006
49. "Statistical Challenges in Genomic and Proteomic Cancer Research." Lecture, Radiation Therapy Oncology Group (RTOG) Annual Meeting, Miami, 2006
50. "Biological Outcome Measures in Clinical Trials." Education session lecture, 42nd ASCO Annual Meeting, Atlanta, 2006
51. "The Statistical Issues in Proteomics Data Analysis." Seminar, University of Texas MD Anderson Cancer Center Bioinformatics Workshop, Houston, 2006
52. "Adaptive Trial Design and Data Analysis." Seminar, Tokai University, Japan, 2006
53. "Clinical Trials." Course, Tokai University, Japan, 2006
54. "A Lesson We Learn from the High Dimensional Data Generated from High Throughput Assays." Seminar, Mayo Clinic, Rochester, MN, 2006

55. "The Statistical Challenges for Clinical Trials Design in High Dimensional Biomarkers." Seminar, Duke University, Durham, NC, 2006
56. "The Wavelet-Based Algorithm for MALDI-TOF MS Data Pre-processing." Seminar, Department of Statistics, National Cheng Kung University, Tainan, Taiwan, 2006
57. "Recent Development of Mass Spectrometry Data Processing Using Mathematical Tools and Statistical Techniques." Seminar, Department of Statistics, Tamkang University, Taipei, 2006
58. "Multiscale Analysis and Proteomic Data Processing." Joint presentation with Dr. Don Hong, 1st International Conference on Computational Systems Biology, FuDan University, Shanghai, 2006
59. "Introduction to Wavelets and Multiscaling Analysis." Joint seminar with Dr. Don Hong, College of Sciences, Ningbo University, Ningbo, Zhejiang, China, 2006
60. "Introduction to Wavelets and Applications in Data Analysis." Joint seminar with Dr. Don Hong, Department of Mathematical Sciences, Guangxi University of Nationalities, Nanning, China, 2006
61. "Wavelets and Applications in Proteomic Data Analysis." Joint seminar with Dr. Don Hong, Department of Computer Informatics Science and Mathematics, Guilin University of Technology, Guangxi, China, 2006
62. "Multiscaling Techniques and PCA/ICA/EMD for Proteomic Data Processing and Biomarkers Discovery." Joint seminar with Dr. Don Hong, Center of Artificial Intelligence and Applications, Beihang University, Beijing, 2006
63. "Proteomic Data Analysis Using Wavelets and Splines." Joint seminar with Dr. Don Hong, Department of Mathematics, Central Florida University, Orlando, 2006
64. "Phase II Trial Design and Analysis." Lecture, Meharry Medical College CRECD/MSCI Program, Nashville, 2006
65. Plenary lecture, NSF Workshop on Quantitative Proteomic Data Analysis, Murfreesboro, TN, 2007
66. "Clinical Trials." Course, Tokai University, Isehara, Japan, 2007
67. "Statistical Challenges in Omic Data Analysis." Seminar, Shanghai Jiaotong University Cancer Research Institute, 2007
68. "Biomarkers Clinical Trials Design and Analysis for High-Dimensional Data." Seminar, Bioinformatics Center of Shanghai Institute of Biological Sciences (SIBS) & Chinese Academy of Sciences (CAS), 2007
69. "Missing Data Analysis—A Case Study of Denmark Childhood Cancer Survivors Cohort." Lecture, 3rd GCCT Investigators Meeting, Nashville, 2007
70. "Wavelet Methods in Tumor Fingerprints Research." Seminar, National Cheng Kung University, Taiwan, 2007
71. "High Dimensional Data Analysis." Course, Tokai University, Isehara, Japan, 2007
72. "Science of Doing Science—Bioinformatics & Biostatistics: A Lesson We Learned from Omics Research." Seminar, China Medical University School of Medicine, Taichung, Taiwan, 2008
73. "Biostatistical and Bioinformatics Approaches in High-Dimensional Data Derived from High Throughput Assays." Seminar, China Medical University Biostatistics Center, Taichung, Taiwan, 2008
74. "Missing Data Analysis." Workshop, China Medical University Biostatistics Center, Taichung, Taiwan, 2008
75. "Clinical Trials." Workshop, China Medical University Biostatistics Center, Taichung, Taiwan, 2008
76. "Strategy of Multivariate Data Analysis." Workshop, China Medical University Biostatistics Center, Taichung, Taiwan, 2008
77. "Advanced Clinical Trials Design and Analysis." Course, Tokai University, Isehara, Japan, 2008
78. "The Challenges and Approaches in MALDI-TOF Experiment Design and Preprocessing Procedures." Seminar, Nagoya University School of Medicine, Japan, 2008
79. "Novel Phase II Clinical Trials Design." Lecture, AACR/ASCO Methods in Clinical Cancer Research Workshop, Vail, CO, 2008–2013
80. "Advanced Statistical Considerations: Things You Think You Can Do, But..." Lecture, ASCO 44th Annual Meeting, Educational Section of Advanced Concepts in Clinical Trial Design and Methodology, Chicago, 2008
81. "Design and Analysis of Clinical Trials—Concepts and Methodologies." Seminar, Tokai University, Isehara, Japan, 2008
82. "Are We Ready to Be the New Sheriffs in Town? Some Issues of High Dimensional Data Analysis." Seminar, Tamkang University, Taiwan, 2008
83. "Innovative Trial Design for Biomarkers Research." Seminar, NCI Translational Science Meeting, Washington, DC, 2008

84. "High-Dimensional Data Analysis." Course, Tokai University, Isehara, Japan, 2008
85. Lecture, Lung Cancer Symposium, Niagara-on-the-Lake, Ontario, Canada, 2008
86. Lecture, 2nd Adaptive Designs in Clinical Drug Development Conference, London, 2008
87. Lecture, Targeted Therapies for the Treatment of Lung Cancer Meeting, Santa Monica, 2008
88. "Adaptive Design: A Shortcut to Personalized Medicine?" Seminar, Adaptive Design in Clinical Drug Development Conference, London, 2009
89. "Challenges in Biostatistics, Bioinformatics, and Omics Research." Seminar, National Cheng Kung University, Tainan City, Taiwan, 2009
90. "Advanced Clinical Trials Design and Analysis." Course, Tokai University, Isehara, Japan, 2009
91. "Adaptive Design: A Shortcut to Personalized Medicine?" Seminar, Tokai University, Isehara, Japan, 2009
92. "Advanced Statistical Considerations: Things You Think You Can Do, But..." Lecture, 45th ASCO Annual Meeting, Educational Section of Advanced Concepts in Clinical Trial Design and Methodology, Orlando, 2009
93. "Advanced Clinical Trials." Two-day workshop, FDA, 2009
94. "Adaptive Design: A Shortcut to Personalized Medicine?" Lecture, ADAPT Conference, Washington, DC, 2009
95. "A Novel Comprehensive Wave-form MS Data Processing Method." Seminar, 2nd International Congress of Image and Signal Processing (CISP)/2nd International Conference on Biomedical Engineering and Informatics (BMEI), Tianjin, China, 2009
96. "The Omics Era and Its Impact on Biomedical Research: Are We Ready to Be the New Sheriffs in Town?" Seminar, Shanghai Center for Bioinformation Technology and Shanghai Jiao Tong University, 2009
97. "High Dimensional Data Analysis." Course, Tokai University, Isehara, Japan, 2009
98. "A Shortcut to Personalized Medicine? The Power of Adaptive Designs." Seminar, Adaptive Design in Clinical Drug Development Conference, London, 2010
99. "Adaptive Clinical Trials in the Era of Personalized Medicine." Seminar, Tsukuba University, Ibaraki, Japan, 2010
100. "Omics Biomarkers Research: From Experimental Design to Data Analysis." Lecture, 2nd Niagara Lung Cancer Symposium, Niagara-on-the-Lake, Ontario, Canada, 2010
101. "Quantitative Sciences Integration: Future Direction of Biomedical Research in the USA." Lecture, Tokai University School of Medicine, Isehara, Japan, 2010
102. "High-Throughput Biomarker Adaptive Design—A Shortcut to Personalized Medicine?" Lecture, Adaptive Clinical Trials Conference, Washington, DC, 2010
103. "Advanced Statistical Considerations: Things You Think You Can Do, But..." 46th ASCO Annual Meeting, Educational Section of Advanced Concepts in Clinical Trial Design and Methodology, Chicago, 2010
104. "Applied Biostatistics and Bioinformatics," Five-day workshop, Shanghai Jiao Tong University, Shanghai, 2010
105. "Biostatistical Challenges in Omics Research." Seminar, National Cheng Kung University, Tainan, Taiwan, 2011
106. "Teaching Biostatistics with Tangible and Interesting Examples." Seminar, National Cheng Kung University, Tainan, Taiwan, 2011
107. "Design and Analysis of Translational Research." Course, Creating Collaborative Research Ethics Education with Costa Rica, 2011
108. "Advanced Biostatistics." Three-day workshop, Kitasato University, Tokyo, 2011
109. "US FDA Case Study." Special lecture series, International Program for Clinical Research at Kitasato University, Tokyo, 2011
110. "Quantitative Sciences Integration in the Era of Personalized Medicine Research." Seminar, International Conference on Applied Statistics, Taipei, 2011
111. "Rigorous Quantitative Sciences Integration—the Foundation of High-Dimensional Genomic Research." Seminar, 4th International Symposium on Cancer Metastasis and the Lymphovascular System: Basis for Rational Therapy, New York, 2011
112. "Rigorous Trial Design and the Ethics of Drug Development—Case Studies from the US FDA and Duke Medical Center." Lecture, National Yang-Ming University, Taipei, 2011
113. "Rigorous Quantitative Sciences Integration—the Foundation of Drug Approval in the Personal Genome Era." Seminar, Emerging Information and Technology Conference (EITC), University of Chicago, 2011

114. "A Study of the Effect of Radiation Therapy on Mitochondrial DNA Mutation Using Next Generation Sequencing." Seminar, 9th International Bioinformatics Workshop (IBW2011), Fourth Military Medical School, Xi'an, China, 2011
115. "Advanced Biostatistics." Three-day workshop, Shanghai Jiao Tong University, China, 2011
116. "Early Phase Cancer Clinical Trials Workshop—A Road Map for Investigator Initiated Studies." Symposium and three-day workshop, University of Malaya, Kuala Lumpur, 2011
117. "The Use of Next-Generation Sequencing Technology to Study the Effect of Radiation Therapy on Mitochondrial DNA Mutation." Seminar, Tamkang University, Taipei, 2011
118. "Rigorous Trial Design and Ethics of Drug Development." Seminar, National Tsing Hua University, Hsinchu, Taiwan, 2011
119. "Sample Size Calculation for Differential Expression Analysis of RNA-seq Data under Poisson Distribution." Seminar, National Cheng Kung University, Tainan, Taiwan, 2011
120. "Advanced Biostatistics." Course, Tamkang University, Taipei, 2011
121. "Omics Data Analysis: Present & Future—From the Era of Gigabyte Data to the Era of Petabyte Data: Are We Ready for the Next Generation Sequencing Data?" Seminar, National Cancer Center of Tokyo, 2012
122. "Omics Data Analysis: Present & Future—From the Era of Gigabyte Data to the Era of Petabyte Data: Are We Ready for the Next Generation Sequencing Data?" Seminar, 12th Annual Targeted Therapy of Lung Cancer Meeting, Santa Monica, 2012
123. "Methods in Cancer Research." Five-day workshop, Al-Ahsa, Saudi Arabia, 2012
124. "The Challenges of the High-Density Biomarker Adaptive Trials." Seminar, Adaptive Designs in Clinical Drug Development, London, 2012
125. "Statistical Bioinformatics Challenges for Clinical Trial Design in the Era of High-Density Data Analysis." Seminar, AACR Annual Meeting, Chicago, 2012
126. "Advanced Biostatistics." Five-day course, Beijing University, 2012
127. "Sample Size Calculation for Differential Expression Analysis of RNA-seq Data under Poisson Distribution." Seminar, Indiana University Bloomington School of Informatics and Computing, 2012
128. "Emerging Methods of Quantitative Biology." Seminar, Nordic Neuroendocrine Symposium, Nashville, 2012
129. "Introduction to Statistical Methods for High-Dimensional Data Analysis." Seminar, Workshop for Chronic Disease Epidemiology and Prevention, China, 2012
130. "Recent Developments of the Statistical Bioinformatics Approaches to Designing and Analyzing Sequencing Data." Seminar, International Workshop on Cancer Systems Biology, Jilin University, Changchun, China, 2012
131. "Novel Clinical Trial Designs in the Genomic Era." Seminar, International Congress on Targeted Therapies in Cancer, Washington, DC, 2012
132. "Advanced Biostatistics with R." Five-day course, Shanghai Jiao Tong University, 2012
133. "Adaptive Clinical Trial Design in the Era of High-Density Data Analysis." Seminar, ADAPT Congress, Washington, DC, 2012
134. "Emerging Methods of Quantitative Biology." Seminar, EITA-Bio 2012, Princeton University, 2012
135. "Emerging Methods of Quantitative Biology." Seminar, Moffitt Cancer Center Grand Rounds, Tampa, 2012
136. "Bioinformatics in Oncology Clinical Trials" and "Novel Phase II Design." Seminars, Talent in Oncology Programme, Munich, 2012
137. "Emerging Methods of Quantitative Biology: What Are the Statistical Challenges?" Seminar, National Cheng Kung University, Tainan, Taiwan, 2013
138. "Novel Trial Design for Sequencing Biomarkers." Seminar, Biomarkers Summit, London, 2013
139. "Emerging Methods of Quantitative Biology." Seminar, FuDan University, Shanghai, 2013
140. "Big Data, Genomics, and Precision Medicine." Seminar, Ohio State University Cancer Center, Columbus, 2013
141. "Advanced Biostatistics." Three-day course, Beijing University, 2013
142. "Novel Clinical Trial Designs in the Era of High-Density Biomarker Data." Presentation, Biomarkers Summit, London, 2013
143. "Novel Phase II Design." Seminars, Talent in Oncology Programme, Amsterdam, 2013
144. "Advanced Biostatistics with R." Five-day course, Shanghai Jiao Tong University, 2013
145. "Big Data and Biomedical Research: Where Do We Go from Here?" Seminar, Cancer Research and Biostatistics, Seattle, 2013
146. "Bioinformatics in Biomarker Discovery." Seminar, Taipei Veterans General Hospital, 2013

147. "Sample Size Estimation for the RNA-sequencing Data." Seminar, University of Pennsylvania, Philadelphia, 2013
148. "Clinical Trial Designs in the Genomic Era." Seminar, 11th Annual International Congress on Targeted Therapies in Cancer, Washington, DC, 2013
149. "Statistical Bioinformatics Challenges in the Era of Personalized Medicine in Cancer." Workshop, Roswell Park Cancer Institute, Buffalo, 2013
150. "Advanced Biostatistics." Five-day course, Tamkang University, Taipei, 2013
151. "Genomics: From Research Tool to the Lung Cancer Clinic." Lecture, 15th IASLC World Conference on Lung Cancer, Sydney, 2013
152. "Novel Phase I Trial Designs." Presentation, 14th Annual Targeted Therapies of Lung Cancer Meeting, Santa Monica, 2014
153. "Advanced Biostatistics with R." Three-day course, National Institute of Biological Sciences, Beijing, 2014
154. "Insights in the Era of Personalized Cancer Therapy and Targeted Therapies: How to Progress Through Well-Conducted Phase I and II Clinical Trials." Presentation, AACR Annual Meeting, San Diego, 2014
155. "Computational Science: Leveraging Computer Data for Large Data Sets." Presentation, 13th Annual Frontiers in Cancer Prevention Research Conference, New Orleans, 2014
156. "Bioinformatics in Oncology Clinical Trials" and "Reporting and Interpreting Statistics in Clinical Trial Research." Seminars, Talent in Oncology Programme, Munich, 2014
157. "Big Data, Genomics, and Precision Medicine." Presentation, Peking University (PKU) Big Data Brainstorm Workshop, Beijing, 2014
158. "Big Data for Precision Median and Biomarker Discovery." Seminar, Albert Einstein College of Medicine, New York, 2014
159. "Emerging Methods of Quantitative Biology." Seminar, 2nd International Symposium of Gunma University, Japan, 2014
160. "Statistical Challenges and Opportunities with Big Data." Seminar, University of Michigan School of Public Health, Ann Arbor, 2014
161. "Bioinformatics for Dummies." Presentation, 13th Round Asia Oncology Forum, Hong Kong, 2014
162. "Basic Statistics," "Phase II Trial Designs," and "Phase III Trial Designs." Lectures, Methods in Clinical Research Workshop for Minority Physicians, Coral Gables, FL, 2014
163. "Big Data, Genomics, and Precision Medicine." Seminar, Peking University, 2014
164. "Novel Phase II Trials." Lecture, AACR/ASCO Methods in Clinical Cancer Research Workshop, Vail, CO, 2014
165. "The Challenges of the High-Density Biomarker Trials Design." Presentation, Smart Trials Conference, London, 2014
166. "Advanced Biostatistics." Four-day course, National Cheng Kung University, Tainan, Taiwan, 2014
167. "Fundamentals of Clinical Trials." Web-based course, ASCO University, 2014, 2015
168. 5th International Workshop on Cancer Systems Biology, Jilin University, Changchun, China, 2015
169. "Data Science in the Era of the Precision Medicine." Presentation, 40th Annual Congress of the Oncology Nursing Society (ONS), Orlando, 2015
170. "Advanced Biostatistics with R." Five-day course, Shanghai Jiao Tong University, 2015
171. "Emerging Methods of Quantitative Biology." Presentation, 12th Annual International Bioinformatics Workshop (IBW), Harbin, China, 2015
172. "Evaluating Well Designed vs. Poorly Designed Randomized Trials," "Phase II Trial Designs in Oncology," and "Biostatistics in Clinical Trials." Lectures, Talent Oncology Program (TOP) workshop, Hong Kong, 2015
173. "Advanced Biostatistics." Three-day course, National Institute of Biological Sciences, Beijing, 2015
174. "Big Data Analysis for the Uninitiated." Presentation, AACR Annual Meeting, Philadelphia, 2015
175. "Big Data in Top Medical Journals: Quantitative Biology for Reproducible Research and Publishing with Integrity." Presentation, Chinese Society of Clinical Oncology (CSCO) Annual Meeting, Xiamen, China, 2015
176. "Big Challenges of Big Data: Biomedical Science in the Petabyte Era." Presentation, Pacific Rim Cancer Biostatistics Conference, Seattle, 2015
177. "Data Science in the Era of the Precision Medicine." Seminar, Osaka University School of Medicine, Japan, 2015
178. "Phase III Trials," "Phase II Trials," and "Statistical Considerations in Clinical Trials." Lectures, Methods in Clinical Research Workshop for Minority Physicians, Los Angeles, 2015

179. "Statistical Considerations in Protocol Development: From Hypothesis to Analysis." Lecture, AACR/ASCO Methods in Clinical Cancer Research Workshop, Vail, CO, 2015
180. "Bioinformatics in Oncology Clinical Trials" and "Biomarkers in Clinical Trials: Statistical Considerations in Design and Evaluation." Lectures, TOP workshop, Singapore, 2015
181. "Data Tsunami as a Limiting Step in Using the All Omics Approach." Presentation, ESMO Asia Annual Meeting, Marina Square, Singapore, 2015
182. "Two-Stage Modified Toxicity Probability Interval Design for Low Target Toxicity Rate." Joint presentation, JSM, Seattle, 2015
183. "Big Data, Genomics and Precision Medicine in Oncology Research," "Novel Phase I and Phase II Clinical Trial Designs," "Statistics 101," and "The Challenges of High-Density Biomarker Adaptive Trials." Talks, Canadian Oncology Resident Education, Canadian Lung Cancer Conference, Vancouver, 2016
184. "Novel Phase I and Phase II Clinical Trial Designs." Presentation, BC Cancer Agency Research Conference, Vancouver, 2016
185. "Big Data, Omics, and Precision Medicine in Cancer Research." Presentation, Chinese Society of Gynecology Oncology Annual Meeting, Beijing, 2016
186. "Clinical Trials Design Methods." Two-part lecture, AACR Annual Meeting, New Orleans, 2016
187. "Basic Biostatistics," "Phase II Clinical Trials," and "Phase III Clinical Trials." Three-day lecture, Roswell Park Cancer Institute: Methods in Clinical Research Workshop, Ft. Lauderdale, 2016
188. "The BETRNet Virtual Repository: A Key Network Resource for Collaboration." Presentation, Barrett's Esophagus Translational Research Network (BETRNet) Steering Committee Meeting, Rockville, MD, 2016
189. "Advanced Biostatistics with R." Five-day course, Shanghai Jiao Tong University, 2016
190. "Novel Phase II Trials." Lecture, AACR/ASCO Methods in Clinical Cancer Research Workshop, Vail, CO, 2016
191. "Biostatistics in Clinical Trials" and "Evaluating Well-Designed vs. Poorly-Designed Randomized Trials." Presentations, Talent in Oncology Programme (TOP), Asia Fundamentals Meetings, Taipei, 2016
192. "Statistical Aspects of Omics Data Analysis Using the Random Compound Covariate." Talk, 75th Annual Meeting of the Japanese Cancer Association (JCA): Breakthroughs in Cancer Treatment: Collaboration of Basic Translational and Clinical Research, Tokyo, 2016
193. "Advanced Biostatistics." Five-day lecture, National Cheng Kung University, Tainan, Taiwan, 2016
194. Lecture, Targeted Therapies for the Treatment of Lung Cancer Meeting, Santa Monica, 2016
195. Lecture, Boehringer Ingelheim Meeting, Vancouver, 2016
196. Lecture, British Columbia Cancer Agency Grand Rounds, Vancouver, 2016
197. Lecture, ESMO Asia Congress, Singapore, 2016
198. "Biostatistics." Web-based course, ASCO, 2016
199. "Biostatistics for Young Scientists." Lecture, Roche Young Scientists Forum, Hong Kong, 2017
200. "Statistics in Oncology: Navigating Clinical Trials and Putting Data into Practice." Lecture, McGill University Visiting Speakers in Oncology Program, Quebec, 2017
201. "Should the Anti-cancer Drugs Be Approved Based on the Non-randomized Single-Arm Trials?" Lecture, 17th Annual Targeted Therapies of Lung Cancer Meeting, Santa Monica, 2017
202. "Big Data, Omics, and Precision Medicine." Lecture, AACR Annual Meeting, Meet-The-Experts Session, Washington, DC, 2017
203. "How to Interpret the Omics Big Data and Apply to the Clinical Practice." Lecture, Global Breast Cancer Conference, Jeju Island, South Korea, 2017
204. "Advanced Biostatistics." Five-day lecture, National Cheng Kung University, Tainan, Taiwan, 2017
205. "Advanced Biostatistics with R." Five-day course, Shanghai Jiao Tong University, 2017
206. "Bioinformatics in Oncology: Principles and Application to Trials for Targeted Agents" and "Biostatistics: Statistical Controversies and Challenges in Reporting Clinical Trials." Presentations, TOP Asia Fundamentals Meetings, Guangzhou, China, 2017
207. "Big Data, Omics, and Precision Medicine." Lecture, Institute of Genetics and Molecular and Cellular Biology (IGBMC), Strasbourg, France, 2017
208. Lecture, Urological Association of Chinese Hospital Association Annual Meeting, Wuhan, 2017
209. Lecture, Boehringer Ingelheim Meeting, Vancouver, 2017
210. Lecture, San Antonio Breast Cancer Symposium, 2017
211. Lecture, 18th IASLC World Conference on Lung Cancer, Yokohama, Japan, 2017

212. Lecture, Institut de Génétique et de Biologie Moléculaire et Cellulaire (IGMBC), ILLKIRCH, Cédex, France, 2017
213. Lecture, Cancer Institute and Hospital, Chinese Academy of Medical Sciences: The Workshop of the Clinical Research and Statistical Challenges, Beijing, 2017
214. “Adaptive Clinical Trials: Overview 1,” “Adaptive Clinical Trials: Overview 2,” and “Adaptive Clinical Trials: Conclusion and Future Directions.” Web-based courses, HSTalks, 2017
215. “Common Statistical Errors and Mistakes in Cancer Research: How to Avoid Them.” Lecture, AACR Annual Meeting, Chicago, 2018
216. “Big Data, Smart Data, and Actionable Data in Precision Medicine.” Lecture, AACR Annual Meeting, Chicago, 2018
217. “Big Data, Smart Data, and Actionable Data in Precision Medicine.” Lecture, Taiwan Breast Cancer Consortium and German Breast Group Joint Meeting, Taipei, 2018
218. “Identifying Actional Targets—Bioinformatics.” Lecture, ESMO Congress, Munich, 2018
219. “Big Data, Smart Data, and Actionable Data in Precision Medicine.” Lecture, Fu Jen Catholic University, Taipei, 2018
220. “Debate: Which Is the Most Important Efficacy Endpoint in First Line Trials in Advanced NSCLC PFS or OS - Point of View.” Lecture, 19th IASLC World Conference on Lung Cancer, Toronto, 2018
221. “Shaping the Future of Precision Medicine and Healthcare.” Lecture, 3rd International Symposium on Translational Cancer Research, Tianjin, China, 2018
222. “Data Science in the Precision Medicine Era: Will Statisticians Lead or Follow?” Lecture, Department of Biostatistics, Columbia University, New York, 2018
223. “Bayesian 101” and “Bayesian Design—Challenges and Prospects.” Lectures, Paul Carbone Academy, Taipei, 2018
224. “REDCap and Open Science.” Lecture, National Cheng Kung University, Tainan, Taiwan, 2018
225. “*p*-value Estimation for the Risk Source of a Prediction Model.” Joint presentation, JSM, Vancouver, 2018
226. Lecture, Young Scientists’ Forum, Hong Kong, 2018
227. Lecture, Asia Super Computing Conference, Singapore, 2019
228. “Power in Multiple Testing: Sample Size Calculations for Differential Expression Analysis of RNA-seq data.” Lecture, Sample Size and Power Workshop for Basic, Translational, and Clinical Studies, AACR Annual Meeting, Atlanta, 2019
229. “Data Science: Shaping the Future of Precision Medicine and Healthcare” and “Big Data, Omics and Precision Medicine.” Lectures, Investigators’ and Site Coordinators’ Opportunity for Research Excellence (I-SCORE) Meeting, Rockville, MD, 2019
230. “Data Science in the Precision Medicine Era: Will Statisticians Lead or Follow?” Lecture, 3rd Pacific Rim Cancer Biostatistics Conference, Portland, OR, 2019
231. “From BioVU to All of Us: Shaping the Future of Precision Medicine and Healthcare.” Lecture, Beijing Summit on Data Science in Health, Beijing, 2019
232. “Complex Innovative Design.” Lecture, ESMO Targeted Anticancer Therapies Congress, Paris, 2019
233. “AI, Machine Learning, and Novel Statistical Methods in Cancer Research.” Lecture, Osaka University, Japan, 2019
234. “Big Data, Smart Data, and Actionable Data: Shaping the Future of Precision Medicine and Healthcare.” Lecture, Tokyo University, 2019
235. “Clinical Trial Design Workshop 2019.” Workshop, Thai Society of Clinical Oncology (TSCO), Phetchaburi, 2019
236. “Biostatistics for the Practicing Oncologist.” Lecture, TSCO Annual Meeting, Phetchaburi, 2019
237. “AI, Machine Learning, and Novel Statistical Methods in Biomedical Research.” Lecture, National Taiwan University, Taipei, 2019
238. “From All of Us to Amazon Care—The Future of Precision Medicine.” Lecture, Multiomics and Precision Medicine Conference, Tainan, Taiwan, 2019
239. “Bioinformatics: The Basics.” Lecture, 20th IASLC World Conference on Lung Cancer, Barcelona, 2019
240. Lecture, Quanta Smart Medicine Symposium, Taipei, 2019
241. Lecture, New Precision Healthcare Forum, Taipei, 2019
242. Lecture, Canadian Lung Cancer Conference, Vancouver, 2020
243. “Data Science in the Precision Health Era: Will Statisticians Lead or Follow?” Virtual seminar, University of Pennsylvania Department of Biostatistics, Epidemiology and Informatics, 2020

244. “scKWARN: Kernel-Weighted-Average Robust Normalization for Single-Cell RNA-seq Data.” Virtual seminar, Department of Biostatistics, SUNY Buffalo, 2020
245. “Current Use of RWD for Evidence Generation—Academia Perspectives” and “RWE generation in the 21st Century—Opportunities and Barriers.” Lectures, Asia Oncology Day virtual conference, 2020
246. “Impact of COVID-19 on Data Science and Precision Medicine.” Lecture, International Symposium on Application of Big Data in Prevention and Treatment of Cancer (virtual), 2020
247. “Biobank Data in Digital Healthcare: Lessons Learned from the US, UK, Sweden, and Denmark.” Lecture, Taiwan Biobank Association Annual Meeting (virtual), 2020
248. Lecture, Conference of Texas Statisticians (virtual), 2020
249. Lecture, 9th International Forum on Multidisciplinary Management of Lung Cancer, Beijing, 2020.
250. Lecture, 2020 BioTaiwan Committee (BTC) Meeting, Taipei, 2020
251. “Statistical Models.” Lecture, IASLC Targeted Therapies of Lung Cancer Meeting (virtual), 2021
252. “Current Use of RWD for Evidence Generation” and “The Core Aspects and Challenges in Clinical Trials Design of Precision Immunotherapy.” Lectures, Lung Cancer Precision Diagnosis and Treatment Forum (virtual), 2021
253. “A Simple Yet Powerful Method to Correct Misinterpretation of Clinical Trial Results with Long-Term Survival.” Lecture, Fiona and Stanley Druckenmiller Center for Lung Cancer Research at Memorial Sloan Kettering Cancer Center, 2021
254. “Immunotherapy Clinical Trials: Design and Endpoints.” Lecture, GOG Foundation Symposium—Cancer Immunotherapy: Successes, Challenges and New Frontiers (virtual), 2021
255. “Optimal Strategies for Designing Clinical Trials of Patients with Rare Mutations.” Lecture, Diamond Talk (virtual conference), 2021
256. “The Next Chapter of Precision Health: Leveraging and Integrating Real-World, Clinical, Omics, and Social Behavioral Data.” Lecture, International Conference on Recent Advances in Precision Medicine and Public-Private Partnership (virtual), 2021
257. “Machine Learning and Advanced Biostatistics in Health Data Science.” Five-day online course, Tamkang University, Taipei, 2021
258. Lecture, National Taiwan University Bioinformatics Center Data Division, Unveiling Ceremony and Symposium, 2021
259. “The Science of Doing Science: Lessons We Learned from Precision Medicine.” Virtual lecture, International Symposium on Biomedical Big Data and Precision Medicine (hybrid), 2022
260. “Design, Execution, and Practice of Clinical Trials.” Lecture, National Taiwan University, Data Office Consensus Camp (virtual), 2022
261. “Research on Rare Mutations in Lung Cancer.” Lecture, Roche Lung Cancer Innovation Summit—Special Conference for Rare Targets of Lung Cancer (virtual), 2022
262. “Panel of Alumni Chairs.” University of Michigan Biostatistics Turns 70, Ann Arbor, 2022
263. “A Practical Approach to Statistics for Junior Oncologists.” Lecture, Training in Lung Cancer (TLC) Meeting, Canadian Lung Cancer Conference, Vancouver, 2022
264. “Statistical Trial Design for Rare Molecular Subtypes.” Lecture, Canadian Lung Cancer Conference, Vancouver, 2022
265. “Challenges and Opportunities in Applied Mathematics, Statistics and Data Science for Cancer Research.” Lecture, 81st Annual Meeting of the Japanese Cancer Association (virtual), 2022
266. “Artificial Intelligence in Digital Pathology and Molecular Biology.” Lecture, ESMO Asia Congress, Singapore, 2022
267. “Challenges and Opportunities in Applied Mathematics, Statistics and Data Science for Cancer Research.” Seminar, Institute of Statistical Science (hybrid), 2022
268. “What Keeps Me Awake at Night Leading a Department of Biostatistics.” Lecture, ENAR (Eastern North American Region, International Biometric Society) Spring Meeting, 2023
269. “What Does a Biostatistician Really Think of Your Study and Why?” Panel, AACR Annual Meeting, 2023
270. “The Role of Biostatistics in an Increasingly Big Data/Data Science World.” Panel, National Institute of Statistical Sciences (webinar), 2023
271. “Practical Aspects of Novel Phase I Trial Designs Involving Laboratory Biomarkers.” Lecture, “The Road to Excellence: Meet the Clinical Study Experts” conference, Taiwan Medical University, 2023
272. “Big Data and Bioinformatics for Biomarker Discovery.” Lecture, World Conference on Lung Cancer, Singapore, 2023

273. “Novel Study Design and Analysis for Integrating Multi-omics Technologies for Early Detection of Cancer.” Lecture, ESMO Asia Congress, Singapore, 2023
274. “Advanced Biostatistics in Real-World Data with COVID-19 Research Examples.” Seven-day course, Tamkang University, Taipei, 2023
275. “AllOfUs: Reflecting on Yesterday, Embracing Today, and Shaping Tomorrow.” Lecture, Taiwan Office of Science and Technology Policy, 2023
276. “Data-Driven Innovation: Navigating Preclinical Development and Translational Medicine in Drug R&D.” Lecture, Taiwan Development Center for Biotechnology, 2023
277. “How Biomedical Innovation Unlocks the Future of Smart Medicine: Navigating AI, Big Data, and Collaborative Medicine.” Lecture, Taiwan Industrial Technology Research Institute, 2023

D. Mentoring

1. Ayumi Shintani, PhD, Department of Biostatistics, Vanderbilt University School of Medicine (VUSM). Faculty mentor, 2001–2007.
2. Derchng Lo, Department of Economics, Vanderbilt University College of Arts and Sciences. PhD committee, 2003–2005.
3. Judith Dexheimer, Department of Bioinformatics, VUSM. PhD committee, 2006–2011.
4. Fei Ye, Department of Biostatistics and Epidemiology, University of South Carolina. MS committee, 2004. PhD committee, 2004–2007.
5. Elizabeth Kanter, Department of Biomedical Engineering, VUSM. PhD committee, 2005–2008.
6. Debbie Wujcik, Department of Nursing, University of Utah. PhD committee, 2005–2008.
7. Mark Harris, Department of Mathematics and Cancer Biology, VUSM. PhD committee, 2008–2009.
8. Stephen Turner, Division of Human Genetics, VUSM. PhD committee, 2008–2010.
9. Terri T. Ni, PhD, Divisions of Genetic Medicine/Cardiovascular Medicine, VUSM. Faculty mentor, 2003–2009.
10. Andrew Yi, PhD, Division of Genetic Medicine, VUSM. Faculty mentor, 2007–2008.
11. Joshua Smith (MD), Department of Cell and Developmental Biology, VUSM. PhD Committee, 2009–2010.
12. Benjamin Grady, Division of Human Genetics, VUSM. PhD qualifying exam committee, 2009. PhD committee, 2009–2012.
13. Zeqiang Ma, Department of Biomedical Informatics, VUSM. PhD committee, 2010–2012.
14. Olivia Veatch, Division of Human Genetics, VUSM. PhD qualifying exam committee, 2010.
15. Emily Holzinger, Division of Human Genetics, VUSM. PhD qualifying exam committee, 2010.
16. Mayur Patel, MD, Division of Trauma and Surgical Critical Care, VUSM. Fellow mentoring committee, 2011–2017.
17. Bingshan Li, PhD, Division of Human Genetics, VUSM. Faculty mentor, 2012–2018.
18. Carlos Lopez, PhD, Department of Cancer Biology, VUSM. Faculty mentor, 2012–2022.
19. Qi Liu, PhD, Department of Biostatistics and Biomedical Informatics, VUSM. Faculty mentor, 2012–present.
20. Isaac Pence, Department of Biomedical Engineering, Vanderbilt University School of Engineering. Dissertation committee, 2013–2016.
21. Yan Guo, PhD, Department of Cancer Biology, VUSM. Faculty mentor, 2013–2017.
22. David Smith, PhD, Department of Radiology and Radiological Sciences, Vanderbilt University. K25 grant mentor, 2013–2018.
23. Michelle Ormseth, MD, MSCI, Department of Rheumatology, VUSM. Faculty mentor, 2014–present.
24. Quanhu Sheng, PhD, Department of Biostatistics, VUSM. Faculty mentor, 2014–present.
25. Xue Zhong, Department of Biostatistics, VUSM. MS advisor, 2014–2015.
26. Xiao Dong, PhD, Department of Genetics, Cell Biology and Development, University of Minnesota, Twin Cities. K99 mentor, 2014–2020.
27. Alicia K. Morgans, MD, Division of Hematology/Oncology, VUSM. Faculty mentor, 2015–2017.
28. Anthony Daniels, MD, MSc, Department of Ophthalmology and Visual Sciences, VUSM. Co-mentor, 2016–present
29. Danxia Yu, PhD, Department of Epidemiology, VUSM. Faculty mentor, 2016–present.
30. Derek K. Smith, PhD, Department of Biostatistics, VUSM. Faculty mentor, 2017–present.
31. Jun Qian, College of Basic and Applied Sciences, Middle Tennessee State University. MS mentor, 2017.

32. Ryan Hsi, MD, Department of Urologic Surgery, VUSM. Faculty mentor, 2017–present.
33. Cheryl L. Gatto, PhD, PMP, Department of Biostatistics, VUSM. Faculty mentor, 2019–2023.
34. Simone Herzberg, Medical Scientist Training Program, VUSM. Biostatistics mentor, 2022–present.
35. Kimberly Albert, PhD, Vanderbilt Center for Cognitive Medicine. Clinical design and biostatistics mentor, 2022–present.
36. Chih-Ting Yang, Department of Biostatistics, VUSM. PhD mentor, 2023–present.
37. Amir Asiaee, PhD, Department of Biostatistics, VUSM. Faculty mentor, 2023–present.

SERVICE

A. I have refereed papers for the following journals:

1. *Science*
2. *New England Journal of Medicine*
3. *Journal of the American Statistical Association*
4. *Bioinformatics*
5. *Communications in Statistics*
6. *Biometrical Journal*
7. *American Medical Informatics Association*
8. *Information Sciences: An International Journal*
9. *Cancer* (**Editorial Board Member**)
10. *Cancer Research*
11. *Southern Medical Journal*
12. *Arteriosclerosis, Thrombosis, and Vascular Biology*
13. *International Chinese Journal of Dentistry* (**Editorial Board Member**)
14. *Clinical Pharmacology and Therapeutics*
15. *Journal of Concrete and Applicable Mathematics* (**Guest Editor with Prof. Don Hong**)
16. *BMC Bioinformatics*
17. *Clinical Cancer Research* (**Editorial Board Member**)
18. *Technology in Cancer Research and Treatment*
19. *Proteomics*
20. *Proceedings of the National Academy of Sciences*
21. *Cancer Prevention Research Journal* (**Editorial Board Member**)
22. *Computational Statistics and Data Analysis*
23. *Journal of Applied Statistics*
24. *Biological Procedures Online* (**Editorial Board Member**)
25. *Clinical Trials*
26. *Journal of Clinical Oncology*
27. *Carcinogenesis*
28. *Science Translational Medicine*
29. *Proteomics—Clinical Applications*
30. *Dataset Papers in Medicine*
31. *PLoS ONE* (**Statistical Advisory Board Member**)
32. *Journal of Thoracic Oncology* (**Associate Editor**)
33. *Journal of Computational Systems Biology* (**Editorial Board Member**)
34. *Journal of Nuclear Medicine* (**Editorial Board Member**)
35. *JAMA Oncology* (**Associate Editor**)
36. *Quantitative Biology* (**Editorial Board Member**)
37. *JNCI* (**Editorial Board Member**)
38. *JNCI Cancer Spectrum* (**Editorial Board Member**)
39. *Nature Communications*
40. *Translational Cancer Research* (**Editorial Board Member**)
41. *Science Bulletin* (**Editorial Board Member**)

B. American Association for Cancer Research (AACR)

Annual Meeting Program Committee

- Clinical Research Subcommittee: Biostatistics in Clinical Trials Section Chair, 2008 and 2014
- Scientific Program Committee: Member, 2011

- Clinical Trials Committee: Member, 2017–2021
- Vice chair, 2021–2022

Standing Committees

- Education and Training Committee: Member, 2015–2021
- Career Development and Mentor Committee for Early-Stage Faculty: Chair, 2016
- Science Education and Career Advancement Committee: Member, 2017–2018
- Precision Combination Therapy Task Force: Member, 2021–2023
 - Education Subcommittee Member, 2022
- Landmarks in Cancer Research (2017–2022) Committee: Member, 2022
- Cancer Progress Report Steering Committee: Member, 2022
- International Affairs Committee: Member, 2022–2023
- Margaret Foti Award Committee: Member, 2023–2025
- Clinical Trials Oversight Committee, 2023–present
- Data Science Task Force, 2024–present

Workshops

- AACR/ASCO Methods in Clinical Cancer Research Workshop
 - Invited faculty, 2004–2016
 - Highest-rated lecturer in 2010, 2012, 2013, 2014 and 2016
 - Merrill J. Egorin Outstanding Mentor Award, 2016
 - Co-director, 2014–2016
 - Co-author, Von Hoff DD, Clark GM, Coltman CA et al. A grant-based experiment to train clinical investigators: the AACR/ASCO Methods in Clinical Cancer Research Workshop. *Clin Cancer Res* 2021;27(20):5472-5481. doi:10.1158/1078-0432.CCR-21-1799
- ECCO-AACR-EORTC-ESMO Workshop on Methods in Clinical Cancer Research: Invited Faculty, 2018–2019. Outstanding Biostatistician Mentor, 2018 and 2019
- EORTC-ESMO-AACR Workshop on Methods in Clinical Cancer Research: Program Committee Member, 2021–2022. Invited Faculty, 2022–2023
- Robert A. Winn Diversity in Clinical Trials Award Program: BMSF-AACR Design and Implementation of Clinical Trials Workshop. Co-director, 2021–present

Presentations at AACR annual meetings include:

- “Analysis and Interpretation of Array Data,” 2002
- “Clinical Trial Design Workshop Part 1: A Journey from Classical to Innovative Approaches” (panel), 2008. Also participated in this conference as invited faculty
- “Clinical Trial Design in the Era of High-Density Data Analysis” (session chair), 2012
- “Statistical Bioinformatics Challenges for Clinical Trial Design in the Era of High-Density Data Analysis,” 2012
- “Insights in the Era of Personalized Cancer Therapy and Targeted Therapies: How to Progress Through Well-Conducted Phase I and II Clinical Trials,” 2014
- “Big Data Analysis for the Uninitiated,” 2015
- “Clinical Trials Design Methods,” 2016
- “Big Data, Omics, and Precision Medicine” (Meet-The-Experts Session), 2017
- “Big Data, Smart Data, and Actionable Data in Precision Medicine,” 2018
- “Common Statistical Errors and Mistakes in Cancer Research: How to Avoid Them” (chair and speaker), 2018
- “Power in Multiple Testing: Sample Size Calculations for Differential Expression Analysis of RNA-seq data,” 2019
- “Design and Analysis of Real-World Data for Cancer Research” methods workshop, 2022

- “Integration of Complex Data and Diversity to Achieve Equity” (in the “Decoding Cancer Health Disparities” plenary), 2022
- “What Does a Biostatistician Really Think of Your Study and Why?” 2023

AACI/AACR/ASCO Capitol Hill Lobby Day: Member, 2009–2010

International Conference on Frontiers in Cancer Prevention Research: Scientific Committee Member, 2003 and 2009

Minority and Minority-Serving Institution Faculty Scholar, 2017

NextGen Star: Applicant Reviewer, 2017

Major Symposium: Integrative Data Science for the Precision Medicine Era: Chair, 2018

Exploratory IND/Phase 0 Clinical Trials Task Force: Member, 2021–present

Daniel D. Von Hoff Award for Outstanding Contributions to Education and Training in Cancer Research Award Committee: Member, 2021–present

ESMO-AACR Joint Symposium, “Data Science and Artificial Intelligence,” ESMO Asia Congress: Co-chair and invited speaker, 2022

ESMO-AACR Joint Session, “Early Detection of Cancer,” ESMO Asia Congress: Co-chair and invited speaker, 2023

C. National Cancer Institute

1. NCI Study Section Special Emphasis Panel (SEP) (ZCA1 SRRB-X (CC)): Member, 1999
2. NCI Subcommittee D-Clinical Studies Review Panel (P01-CA72008-04): Member, 2000
3. NCI Subcommittee E-Cancer Epidemiology, Prevention & Control Studies Review Panel (P01-CA88961-01): Member, 2000
4. NCI P50 Cancer Center Support Grant (CCSG) Review Panel (University of Wisconsin, Madison): Member, 2000
5. NCI Subcommittee E-Cancer Epidemiology, Prevention & Control Studies Review Panel (NCI-E GRB-R(Y)): Member, 2001
6. NCI Subcommittee C-Basic and Preclinical Review Panel (NCI-C GRP-P (Q2)): Member, 2001
7. NCI 9th SPORE Investigators' Workshop: Invited Speaker, 2001
8. NCI Lymphoma SPORE Review Panel: Member, 2002
9. NCI Lung SPORE Annual Meeting, Denver, Colorado, Session of Methods of Array Analysis: Chair, 2002
10. NCI PO1-CA096888-01C4 “Molecular Gene and Radiation Therapies for Cancer”: Site Visit Reviewer, 2002
11. NCI Biology and Transplantation of Human Stem Cell SEP (ZCA1 GRB-W(01)): Member, 2002
12. NCI Subcommittee E-Cancer Epidemiology, Prevention & Control Review Panel (NCI-E GRB-P (K2)): Member, 2002
13. NCI Subcommittee C—Basic & Preclinical Review Panel (NCI-C GRB-P (K1)): Member, 2002
14. NCI PO1-CA100336-01 Review Panel, “Molecular Targets in Prostate Cancer”: Member, 2002
15. NCI Pancreatic SPORE Review Panel: Member, 2003
16. NCI PO1 CA 104668-01 Review Panel, “Mechanism-Based Approach for the Management of Prostate Cancer” (NCI-C GRB-P (X8)): Member, 2003

17. NCI Ovarian & Breast SPORE Review Panel: Member, 2003
18. NCI PO1 CA 104106-01 Review Panel, "Signaling and Progression in Prostate Cancer" (NCI-C GRB-R (C2)): Member, 2003
19. NCI Leukemia & Lymphoma SPORE Review Panel: Member, 2003
20. NCI Developmental Therapeutics Study Section: Member, 2003–2008
21. NCI UO1 CA 107948-01 Review Panel, "The Pediatric Brain Tumor Consortium" (NCI–ZCA1 GRB-F (J1)): Member, 2003
22. NCI Subcommittee D—Clinical Studies PO1 CA112359-01 Review Panel, "New Approaches to the Treatment of Neuroblastomas" (NCI-D RPRB (S3)): Member, 2004
23. NCI Subcommittee A—Cancer Centers Review Panel (NCI-A RTRB-Z (E1)), 2004
24. NCI P50 CCSG Review Panel (University of Pennsylvania Comprehensive Cancer Center): Member, 2004
25. NCI GI/Pancreas Inter-SPORE Meeting: Section of Data Analysis: Chair, Nashville, 2004
26. NCI GI/Pancreas Inter-SPORE Meeting: Invited Speaker, Nashville, 2004
27. NCI Clinical Oncology Study Section: Ad Hoc Member, 2005
28. NCI Ovarian-GYN Cancer SPORE Review Panel: Member, 2005
29. NCI P50 CCSG Review Panel (University of Colorado Comprehensive Cancer Center): Member, 2005
30. NCI Etiologic and Early Marker Studies (EEMS) Review Panel: Member, 2005–present
31. NCI Avon Breast Cancer Research Review Panel: Member, 2005
32. NCI PO1 Experimental Therapeutics Cluster Review Panel: Member, 2005
33. NCI ZCA1 GRB-S (01) Centers of Cancer Nanotechnology Excellence (CCNE) SEP: Member, 2005
34. NCI ZRG1 ONC-J (02) M: COX-2 Inhibition of T-Cells in Human Lung Cancer. Center for Scientific Review SEP: Member, 2005
35. NCI Translational Research Workshop Group (TRWG): Invited Speaker, 2006
36. NCI Intramural Program: Biostatistics Branch Review Panel: Member, 2006
37. NCI SPORE Breast Cancer Research Review Panel: Member, 2006
38. NCI Avon Breast Cancer Research Review Panel: Member, 2006
39. NCI L30 and L40 SEP: Member, 2006–2009
40. NCI Discovery and Development SEP: Member, 2006–2007
41. NCI SPORE Standing SEP: Member, 2007–present
42. NCI Workshop on Implementation of Biomarkers Evidence in Translational Research Organizing Committee: Member, 2007
43. NCI P50 CCSG Review Panel (Kimmel Cancer Center at Thomas Jefferson University): Member, 2007
44. NCI Avon Progress for Patients Blue Ribbon Panel Advisory Board: Member, 2007
45. NCI/NIH Cancer Genome Atlas (TCGA) Data Portal Use Workshop: Invited Participant, 2008
46. NCI Comprehensive Systems Genetics of Cancer SEP: Member, 2008
47. NCI P01 Molecular Oncology SEP: Member, 2008
48. NCI Translational Science Meeting: Invited Speaker, 2008

49. NCI Subcommittee J—Population and Patient-Oriented Training Study Section: Member, 2008–2009
50. NCI ZCA1 RTRB-2 Career Development Awards Panel: Member, 2008
51. NCI P01 Molecular Oncology (Basic, Translational, and Clinical Studies) SEP: Member, 2009–2010
52. NCI P50 CCSG Review Panel (Pennsylvania State Cancer Center): Member, 2010
53. NCI Gastrointestinal Cancers SEP: Member, 2010
54. NCI SBIR Phase II, Integrating Patient-Reported Outcomes in Hospice and Palliative Care Practices, Study Section: Chair, 2010
55. NCI LRP Review Panel: Member, 2011
56. NCI Cancer Diagnostics and Treatments SBIR/STTR Review Panel: Member, 2011
57. NCI P50 CCSG Review Panel (Maryland Greenebaum Cancer Center): Member, 2011
58. NCI P50 CCSG Review Panel (University of Virginia Cancer Center): Member, 2011
59. NCI P50 CCSG Review Panel (Johns Hopkins Kimmel Cancer Center): Member, 2011, 2016
60. NCI P01 ZCA1 GRB-T (M1) SEP: Member, 2012
61. NCI P30 CCSG Review Panel (New York University Cancer Institute): Member, 2012
62. NCI P30 CCSG Review Panel (Kimmel Cancer Center at Thomas Jefferson University): Member, 2012
63. NCI P30 CCSG Review Panel (University of Chicago Comprehensive Cancer Center): Member, 2012
64. NCI Cancer Immunopathology and Immunotherapy (CII) Study Section: Member, 2013–2017
65. NCI P30 CCSG Review Panel (Fred Hutchinson/University of Washington Consortium): Member, 2014
66. NCI P30 CCSG Review Panel (University of Texas Health Science Center at San Antonio (UTHSCSA)): Member, 2014
67. NCI P30 CCSG Review Panel (Cold Spring Harbor Laboratory Cancer Center): Member, 2016
68. NCI P30 CCSG Review Panel (Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins University): Member, 2016
69. NCI ZCA1 RPRB-N (O)1 SEP; SPORE Review: Member, 2017
70. NCI P30 CCSG Review Panel (Hawaii Cancer Center): Member, 2018, 2024
71. NCI CTEP Early Drug Development (EDD) and Investigational Drug Steering Committee (IDSC): Member, 2019–present
72. NCI P30 CCSG Review Panel (University of Pennsylvania Comprehensive Cancer Center): Member, 2020
73. NCI Developmental Therapeutics (DT) Study Section: Member, 2021
74. NCI P30 CCSG Review Panel (Wake Forest Baptist Medical Center Comprehensive Cancer Center): Member, 2021
75. NCI Office of Sponsor and Regulatory Oversight: Thoracic Committee Member and Data Safety and Monitoring Board Biostatistician, 2022

D. American Statistical Association

1. International Science and Engineering Fair (ISEF): Special Awards Judge, 1997
2. Mid-Tennessee Chapter: Council Representative, 1998–1999
3. Mid-Tennessee Chapter: President, 1999
4. Council of Chapters Governing Board: Vice Chair, 2002–2004

5. Council of Chapters Nominations Committee: Member, 2004–2005

E. Robert A. Winn Diversity in Clinical Trials Career Development Award (Winn CDA) Program

- Lecturer, 2021–present (orientation and scholar forums)
 - Statistical Principles in Clinical Trials
 - Statistical Methods in Epidemiology
 - Biostatistics I and II
- Program Co-director, Design and Implementation of Clinical Trials Workshop, 2021–present

F. Other

1. Society for Epidemiologic Research: Annual Meeting Abstracts Reviewer, 1997–1999
2. VICC Clinical Breast Cancer Journal Club: Statistical Commentator, 1998–present
3. Vanderbilt University Chinese Student Association: Advisor, 1998–2002
4. 1998 Chinese Youth Goodwill Mission from Taiwan: Co-sponsor, 1998
5. U.S. Army Medical Research and Materiel Command (USAMRMC) Breast Cancer Research Program (BCRP): Scientist Reviewer, Epidemiology, 1999
6. International Biometric Conference, Berkeley, Section of Correlated Binary Data: Chair, 2000
7. JSM Invited Sessions Program: Section on Statistical Consulting: Organizer, 2001
8. IASLC/ASCO Consensus Conference on Bronchioloalveolar Cell Carcinoma: Invited Panelist, New York, 2004
9. Targeted Therapies for the Treatment of Lung Cancer Investigators' Meeting: Invited Faculty, Steamboat Springs, CO, 2005
10. Mathematical Biosciences Institute (MBI) Workshop—Genomics, Proteomics, and Bioinformatics—Biomarkers in Cancer Research: Invited Faculty, Columbus, OH, 2005
11. ICSA Applied Statistics Symposium: Invited Faculty, Washington, DC, 2005
12. Spline and Wavelet Applications in Biostatistics and Actuarial Mathematics (with Dr. Don Hong). Invited Presentation and Mini-Symposium Organizer, Athens, GA, 2005
13. 47th Anniversary Annual Conference, American Association for Chinese Studies: Chair and Local Organizing Committee Member, Nashville, 2005
14. Hawaii International Conference on Statistics, Math, and Related Fields: Abstract Reviewer, Section Chair, Honolulu, 2007
15. 6th-Sino-Japan-Korea Bioinformatics Training Course: Invited Faculty, Shanghai, 2007
16. Susan G. Komen Foundation Promise Grant: Program Reviewer, Washington, DC, 2008
17. ENAR, Panel on Genomics and Microarray Analyses: Chair, Arlington, VA, 2008
18. Biostatistics and Bioinformatics Workshop on High-Dimensional Data Analysis: Co-Organizer, Taipei, Taiwan, 2008
19. Susan G. Komen for the Cure's Promise Grants Scientific Peer Review Committee: Member, 2008–2012
20. ASCO Cancer Research Committee: Member, 2008–present
21. Canadian Cancer Society Research Institute Program Project Review Panel: Member, 2009
22. Susan G. Komen for the Cure Targeted Therapies (TT2) Grant: Review Panel Member, Dallas, 2009
23. Cancer Society Research Institute, Review Panel for the Canadian Breast Cancer Research Alliance Special Research Competition on Predictive Oncology, Member, 2010
24. Susan G. Komen for the Cure Research Programs Grant: Review Panel Member, Dallas, 2011

25. ASCO Cancer Foundation Grants Selection Committee: Member, 2010–present
26. 4th International Symposium on Cancer Metastasis and the Lymphovascular System: Basis for Rational Therapy: Biomarkers and Informatics: Session Chair, New York, 2011
27. Aduro BioTech CRS-207 & GVAX Pancreas Vaccine with Cyclophosphamide Study Data and Safety Monitoring Committee: Member, 2011
28. Immunogen Data Safety and Monitoring Board: Member, 2012
29. Chicago Thoracic Symposium: Abstract Reviewer, Program Committee Member, and Chair of Keynote Lectures, 2012
30. Methods in Cancer Research Workshop, Scientific Committee: Member, Al-Ahsa, Saudi Arabia, 2012
31. International Conference on Intelligent Biology and Medicine: General Chair, Nashville, 2012–2013
32. Brain Tumour Charity, Peer Review Committee: Member, 2013
33. Grand Rounds, Roswell Park Cancer Institute: Invited Speaker, Buffalo, NY, 2013
34. International Clinical Trials Workshop (ICTW) Working Group: Member, 2014–2017
35. Roche pRED Data Monitoring Committee (DMC) of the MDM2 Phase 2/3 Trial in AML Patients: Member, 2014
36. Peking University (PKU) Big Data Brainstorm Workshop: Chair, Beijing, 2014
37. Institute of Medicine (IOM) Committee on Policy Issues in the Clinical Development of Biomarkers for Molecularly Targeted Therapies: Member, 2014–present
38. Pacific Rim Cancer Biostatistics Conference: Chair, “Phase III Trials,” Seattle, 2015
39. MMY3004 Interim Analysis Meeting, Vienna, 2015
40. EITA-Bio 2015: Recent Advances in Biomedical Research Conference: Program Steering Committee: Member, National Taiwan University, 2015
41. South Big Data Hub Meeting, Georgia Tech Global Learning Center, Atlanta, 2015
42. Roche WO29519 Constitutional Independent DMC Meeting, Barcelona, 2016
43. Ontario Institute for Cancer Research (OICR) Translational Research Initiatives: Hospital for Sick Children, Neurosurgery, Biostatistical Reviewer, Canada, 2016
44. Ontario Institute for Cancer Research (OICR) Translational Research Initiatives: Princess Margaret Cancer Centre and Ottawa Hospital Research Institute, Immuno-oncology, Biostatistical Reviewer, Canada, 2016
45. ASCO International Clinical Trials Workshops (ICTW): Chair, Course Director, and Invited Speaker, Luoyang, China, 2017
46. AMIA Annual Symposium: Reviewer, 2017
47. ASCO Annual Meeting Scientific Program Committee-Biostatistics: Member, 2017
48. Shanghai Jiaotong University Summer Institute Statistical Workshop: Course Director, 2017
49. Springer Nature: Beyond Developing Clinical Trials: Successful Communication of Your Research, Invited Faculty, Guangzhou, China, 2017
50. Tamkang University Statistical Workshop, Course Director, Taipei, 2017
51. 2nd Pacific Rim Cancer Biostatistics Workshop, Co-chair, Kanazawa, Japan, 2017
52. IALSC Targeted Therapies of Lung Cancer Meetings, Santa Monica: Invited Faculty, 2018–2020; Poster Mentor, 2024
53. BETRNet Steering Committee Annual Meeting, Session Leader, Philadelphia, 2018
54. BETRNet Steering Committee Annual Meeting, Session Leader & Invited Speaker, Ann Arbor, MI, 2019

55. North American Biostatistics Chairs Virtual Annual Business Meeting, Facilitator: Remote Working Options, 2022
56. Roche Lung Cancer Innovation Summit—Special Conference for Rare Targets of Lung Cancer: Invited speaker and chair, virtual meeting, 2022
57. National Institute for Health and Care Research: Reviewer, 2023
58. AI Optimization and Forecasting in the Digital Era—Theory, Methods, and Algorithms (Germany/Singapore International Research Training Group): Advisor, 2023–present
59. IASLC World Conference on Lung Cancer: Statistician reviewer, 2024

COMMITTEES

Vanderbilt University

1. Faculty Senate: Member, 2004–2007
2. Community Giving Campaign Allocations Committee: Member, 2006–2007
3. Senate Consultative Committee: Member, 2007
4. Academic Policies and Services Committee (APS): Member, 2004–2007
5. ACCRE Steering Committee: Member, 2015–present
6. Data Science Visions Working Group: Co-chair, 2017–2018
7. Executive Committee of Executive Faculty: Member, 2018–2020

Vanderbilt University School of Medicine

8. Vanderbilt-Ingram Comprehensive Cancer Center (now VICC) Clinical Protocol Review Committee: Member, 1995–2001
9. VICC Clinical Trials Office Steering Committee: Member, 1998–present
10. VICC Biostatistics Faculty Search Committee: Chair, 1998
11. Information Policy Advisory Committee Database Subcommittee: Member, 1999
12. Admissions: Faculty Interviewer, 2000–2001
13. Bioinformatics Graduate Programs Admissions Committee: Member, 2001
14. Data Center for Large Clinical Trials Multidisciplinary Group Committee: Member, 2001–present
15. VICC Data Safety and Monitoring Committee: Member, 2001–present
16. VICC Clinical Protocol Scientific Review Committee: Member, 2001–present
17. Data Safety and Monitoring Committee—RAAS, Inflammation and Post-Operative Atrial Fibrillation: Member, 2003–present
18. Department of Biostatistics Promotion and Tenure Committee: Member, 2003–present
19. Department of Biostatistics, Faculty Search Committee: Member, 2003–present
20. Microarray Core Steering Committee: Member, 2006–2009
21. Ayers Institute Steering Committee: Member, 2008–present
22. Data Safety and Monitoring Board—Inotropic Drugs and Risk of Postoperative Atrial Fibrillation: Member, 2009–present
23. Data Safety and Monitoring Board—Antioxidant Enzyme Induction as a New Approach to Therapy in Patients with Asthma: Member, 2009–present
24. Emerging Information and Technical Conference (EITC) Biomedical Technology Steering Committee: Member, 2011–present
25. BioVU Steering Committee: Member, 2012–present
26. Genetics Executive Committee: Member, 2014–present
27. Executive Committee of the Executive Faculty: Member, 2014–2015, 2019–2020, 2023–2025
28. Faculty Appointments and Promotions Committee: Member, 2015–2017
29. Faculty Advisory Committee for Research IT: Member, 2015–present
30. Grant W. Liddle Chair Selection Committee: Chair, 2017
31. Vanderbilt Faculty Research Scholars Selection Committee: Member, 2018
32. Donna S. Hall Chair in Breast Cancer Review Committee: Chair, 2021
33. Research IT Steering Committee, 2023–present

American Association for Cancer Research (AACR)—see above, under Service

National Institutes of Health (NIH)—see also under Service

34. Sequence Read Archive (SRA), MEP Study Section SEP (ZRG1-MEP-04S): Member, 1999
35. National Institute on Alcohol Abuse and Alcoholism SEP: Member, 2005
36. CSR ZRG1 OTC-X (14) B Experimental Cancer Therapeutics SBIR/STTR Study Section: Member, 2009–2010

University of Alabama at Birmingham Comprehensive Cancer Center

37. External Advisory Board (EAB): Ad Hoc Member, 2003
38. External Consultant for Bioinformatics, 2003

American Joint Committee on Cancer (AJCC)

39. Statistical Task Force Committee: Member, 2005
40. Statistical Task Force, Development of the 7th Edition of the AJCC Cancer Staging Manual: Member, 2006

National Security Agency (NSA)

41. Workshop on Mathematical Tools and Statistical Techniques for Quantitative Medical Data Analysis: Scientific Committee Member, 2005–2006

Middle Tennessee State University

42. College of Basic and Applied Science, Master of Science in Professional Science (MS-PS) Advisory Board: Member, 2006–present

State of Tennessee Department of Health

43. Tennessee Cancer Registry Advisory Committee: Member, 2007–present

US Food and Drug Administration (FDA)

44. Office of Women's Health Intramural Science Program: Expert Reviewer, 2007
45. Anti-infective Drugs Advisory Committee: Voting Member, 2009–2014
46. Antimicrobial Drugs Advisory Committee (formerly the Anti-infective Drugs Advisory Committee): Ad Hoc Member, 2015–present

International Association for the Study of Lung Cancer

47. World Conference International Scientific Committee: Member, 2007–2009, 2011
48. World Conference Committee, Trial Design/Statistics: Member, 2016

Northwestern University

49. Robert H. Lurie Comprehensive Cancer Center EAB: Member, 2008–present
50. Breast SPORE EAB: Member, 2020–present

SRA International Global Health Sector

51. External Consulting and Advisory Team: Member, 2008–present

Tokai University Institute of Innovative Science and Technology, Isehara, Japan

52. Tenure Track Faculty Selection Committee: Member, 2010–2015

Shanghai Center for Bioinformatics Technology, China

53. Academic Committee: Member, 2010–present

University of Colorado, Denver

54. SPORE in Lung Cancer External Scientific Advisory Board (ESAB): Member, 2010–2019
55. Lung Strategic Partnering to Evaluate Cancer Signatures (SPECS) External Advisory Committee (EAC): Member, 2011–2019
56. University of Colorado Comprehensive Cancer Center ESAB: Member, 2020–present

University of Kentucky Markey Cancer Center, Lexington

57. Biostatistics Shared Resource Facility EAB: Member, 2010–present

American College of Radiology

58. Imaging Network Biospecimen Review Committee: Member, 2010–present

Moffitt Cancer Center

59. EAC: Member, 2014–present
60. Council of Scientific Advisors: Ad Hoc Member, 2010
61. SPORE in Lung Cancer ESAB: Member, 2010–2015
62. Integrated Program in Cancer and Data Science EAB: Member, 2021–present
63. Next Generation Immunotherapies for Patients with Lung Cancer EAB, 2022–present

Duke University

64. Institute for Genome Sciences and Policy: Data Safety and Monitoring Board-Oversight Committee (DSMB-OC): Member, 2011–2012

Arizona University

65. Arizona GI SPORE EAC: Member, 2011–2012

Dartmouth College

66. Institute for Quantitative Biomedical Sciences EAC: Member, 2012–present

Rutgers Cancer Institute of New Jersey

67. Precision Medicine Initiative EAB: Member, 2013–present
68. Biometrics Shared Resource EAB: Member, 2019–present

Radiation Therapy Oncology Group, American College of Radiology

69. Brain SPORE EAB: Member, 2013–present

City of Hope Cancer Center

70. Biostatistics Core EAB: Member, 2013

University of California, San Diego

71. Cancer Center Support Grant: Biostatistics Core External Consultant, 2013

Mount Sinai School of Medicine

- 72. Tisch Cancer Institute EAB: Member, 2013–present
- 73. Myeloproliferative Neoplasms–Research Consortium (MPN–RC) EAB: Member, 2019–present

United States-Latin America Cancer Research Network

- 74. Molecular Profiling of Breast Cancer Study DMC: Member, 2013–present

MD Anderson Cancer Center

- 75. R. Lee Clark Fellows Award EAB (Scientist Panel): Member, 2014–present

Indiana University

- 76. Center for Computational Biology and Bioinformatics (CCBB) EAB: Member, 2014–present
- 77. Genome Privacy Workshop Advisory Committee: Member, 2015–present

Baylor College of Medicine

- 78. Dan L. Duncan Cancer Center EAB: Member, 2014–present

Peking University, China

- 79. Biobank Advisory Board: Member, 2014–present

University of Texas Southwestern Medical Center

- 80. Kidney SPORE EAB: Member, 2015–present
- 81. Lung SPORE Biostatistics Core: External Reviewer, 2017–present

Oregon Health and Science University: Knight Cancer Institute

- 82. Cancer Biostatistics Advisory Committee: Member, 2015–present
- 83. EAB Committee: Member, 2019–present

Meharry-Vanderbilt Alliance

- 84. Epidemiology & Statistics Senior Faculty Search Committee: Co-chair, 2001–2002
- 85. Statistics Senior Faculty Search Committee: Co-chair, 2013

Yale School of Medicine: Yale Cancer Center

- 86. DNA Damage Repair SPORE EAB: Member, 2017–present

Alliance for Clinical Trials in Oncology

- 87. Alliance Statistics and Data Center (SDC): External Reviewer, 2017–present

The James Cancer Hospital and Solove Research Institute and Moffitt Cancer Center

- 88. Lung SPORE EAB: Member, 2017–present

International Workshop on Cancer Systems Biology

- 89. Steering Committee: Member, 2011–present

Executive Yuan (Executive Branch), Taiwan

- 90. Biotech Industry Strategy Advisory Committee: Member, 2021–present

North American Biostatistics Chairs

- 91. Executive Committee: Co-chair, 2020–2021

Ministry of Health and Welfare (Taiwan) Inter-institutional Collaborative Project in Cancer Translational Research

- 92. Review Committee: Member, 2021

Mayo Clinic

- 93. Lung SPORE EAB: Member, 2020–present

University of Iowa

94. Oral Cancer SPORE EAB: Member, 2022–present

Terry Fox Research Institute

95. International Review Committee, Program Project Grants: Member, 2022–present

Conquer Cancer

96. Conquer Cancer-ICRF-CDA Subcommittee: Member, 2022

Academia Sinica

97. Institute of Statistical Science, Academia Advisory Committee, 2023–2025

Woxsen University

98. International Advisory Board, 2023–2025

LEADERSHIP DEVELOPMENT

Vanderbilt University School of Medicine Academic Leadership Program, 2007

CONSULTING

Vanderbilt University Medical Center: provided consulting services to more than 1,000 clients and reviewed over 2,000 clinical protocols, 1994–present

CURRENT RESEARCH AT VANDERBILT

1. 1K24HL165163-01A1 (Shibao) 04/20/2023–03/31/2028
 NHLBI \$579,915
 Mentoring in Cholinergic Regulation of Vascular Oxidation
 This project will test the novel hypothesis that noninvasive vagus nerve stimulation will result in the improvement of vascular inflammation and oxidative stress in African Americans.
 Roe: Co-Investigator

2. U01 DK137533 (Rothman) 07/21/2023-06/30/2027
 NIDDK \$27,912,000
 CODA: Covid and Diabetes Assessment
 The study will include 1600 study participants diagnosed with diabetes in the last 3 months, who have had a known COVID-19 infection in the past 90 days and those with recent diagnosis of diabetes and no known COVID-19 infection in the past year.

3. U54 TR002243-06 (Bernard) 06/01/2017–02/28/2027
 NCATS \$54,806,825
 Vanderbilt Institute for Clinical and Translational Research (CTSA)
 The Vanderbilt Institute for Clinical and Translational Research (VICTR) is a highly functional and integrated clinical and translational (C&T) research infrastructure that has raised the quality and rigor of the research conducted at Vanderbilt and partner Meharry Medical College. VICTR contributes to the mission of the CTSA program, leveraging unique resources and expertise while elevating and advancing the role of health equity in C&T research.
 Role: Co-Investigator

4. NU3 HCK000006 (Banerjee) 09/30/2021–09/29/2026
 CDC \$2,462,128
 Enhanced Detection of Resistance, Antibiotic Stewardship and infection control, and Genome sequencing NETWORK for AMR containment (DRAGNET)

We propose creation of a network called DRAGNET to increase laboratory diagnostic testing capacity for resistance detection in gram-negative BSIs using genotypic (whole genome sequencing, WGS) and novel phenotypic susceptibility testing methods. We will implement these laboratory tests with infection control and antimicrobial stewardship training and activities to optimize integration of diagnostics and AMR data into clinical management.

Role: Co-Investigator

5. U54 CA163072-13 (Pal) 09/21/2011–08/31/2026
 NCI \$7,488,477
 MMC, VICC, and TSU: Partners in Eliminating Cancer Disparities
 To meet our ultimate goals of overcoming cancer disparities while simultaneously strengthening research impact, the overall objectives of this project are to: 1) increase the participation in traditional, investigator-initiated cancer research projects awarded to MMC and TSU faculty with collaborative guidance by senior VICC faculty; 2) increase the number of investigator-initiated awards to VICC junior faculty that address cancer disparities; 3) recruit, train and retain early-stage investigators to become independent leaders in cancer health disparities and cancer research and training; 4) expand MVTCP participation in national oncology treatment and interventional trials; 5) strengthen the physical and intellectual infrastructure for research at MMC and TSU; 6) facilitate partnerships between community organizations and academic researchers, leading to hypothesis driven research projects that include the involvement of a community health educator; 7) increase the number of MMC and TSU trainees engaged in cancer research; and 8) increase awareness of cancer research opportunities and careers for minority high school, undergraduate, graduate and medical students through the Pathway to Discovery program.
 Role: Core Lead

6. VUMC95146/R37 CA245157 (Warram) 10/11/2021–04/30/2026
 University of Alabama-Birmingham/NCI \$339,376
 Reduction of Tumor-Positive Margins in Oncology Surgery
 Because poor survival directly correlates with positive margin rate in head and neck cancer, we propose a clinical trial using a systemically injected contrast agent to determine if optical imaging during surgery can improve detection of tumor-positive margins in real-time.
 Role: Co-Investigator

7. VUMC88214 / U54 CA260560 (Hirsch) 09/30/2020–08/31/2025
 Mt. Sinai/NCI \$1,200,297
 Vulnerability of SARS-CoV-2 Infection in Lung Cancer Based on Serological Antibody Analyses
 The purpose of the Data Science Core (DSC) is to provide professional expertise in biostatistics, bioinformatics and research informatics for all SARS-CoV-2 Serological Sciences Centers of Excellence (U54) projects, investigators and participants.
 Role: Core Director / Site PI

6. P30 CA068485-27S2 (Park) 06/01/2020–08/31/2025
 NCI \$600,000
 Cancer Center Support Grant-COVID-19 and Cancer Consortium (CCC19)
 The driving goal of the consortium is to collect granular, uniformly organized information to stimulate translational science, and to arm treating providers with the most complete data resource as rapidly as possible on cancer patients infected with COVID-19.
 Role: Co-Investigator

7. P30 CA068485-27 (Park) 09/01/1998–08/31/2025
 NCI \$37,668,378
 Cancer Center Support Grant

The Vanderbilt-Ingram Cancer Center Support Grant provides the infrastructure support to facilitate basic, clinical and population-based research relevant to our mission to alleviate cancer death and suffering through pioneering research, innovative patient care, evidence-based prevention, education and communication.

Role: Scientific Director

8. VUMC44233/UM1CA186689 (LoRusso) 07/10/2014–02/28/2025
 Yale/NCI \$1,915,930
 VIKtriY Early Clinical Trials Consortium (ECTC)
 The major goals of this project are to 1) leverage novel scientific discoveries for translation into early phase trials, using the CTEP pharmacopeia, in rare cancers, common cancers, and uncommon variants of common cancers; 2) incorporate serum, tissue and imaging biomarkers to better understand the effects of novel agents either alone or in combination; 3) train early career investigators to be knowledgeable and proficient in conducting early phase clinical trials by providing clinical research leadership opportunities and mentoring; and 4) include as a component of our early phase clinical trial recruitment no less than 10% underserved/special populations.
 Role: Biostatistician

9. VUMC82497/P01 CA229123 (Weaver) 01/01/2020–12/31/2024
 VU/NCI \$3,228,222
 exRNA in Colorectal Carcinoma: Biogenesis and Function
 The overall goal of our program is to understand how extracellular RNA is secreted and taken up by recipient cells to influence the development and aggressiveness of colorectal carcinomas (CRC).
 Role: Director, Core 1A

10. R35 HL140016-05 (Harrison) 02/01/2018–12/31/2024
 NHLBI \$5,277,926
 Mechanisms of Immune Activation in Hypertension
 The major goal of this project is to identify how hypertension interacts with the immune system to elicit the inflammatory response.
 Role: Co-Investigator

11. U2 CCA233291-01 (Coffey) 09/20/2018–08/31/2024
 NCI \$12,245,541
 Integrative Single-Cell Atlas of Host and Microenvironment in Colorectal Neoplastic Transformation
 The major goal of this project is to map spatial relationships across the spectrum of normal colon, early polyps, advanced adenomas, and adenocarcinomas, including their unique stromal and microbial microenvironments, to identify these phenotypes for development of precision diagnostics and preventive strategies.
 Role: Unit Co-Lead

12. P50 CA098131-20 (Pietenpol) 08/07/2003–07/31/2024
 NCI \$10,798,363
 SPORE in Breast Cancer
 The overall goal of this project is to conduct multidisciplinary, mechanism-based, translational research of the highest possible impact that will contribute meaningfully to measurable progress in breast cancer.
 Role: Core Director

13. P50 CA236733-03 (Coffey) 07/09/2019–05/31/2024
 NCI \$11,590,546
 Vanderbilt-Ingram Cancer Center SPORE in Gastrointestinal Cancer

The major goals of this project are to: (1) examine whether cancer stem cells represent a tractable therapeutic target, (2) optimize EGFR blockade by targeting glutamine metabolism, and (3) develop a drug to inhibit MYC, through project specific aims supported by three research cores.
Role: Core Director

COMPLETED RESEARCH AT VANDERBILT

P01 HL108800-11 (Hemnes) 09/01/2012–06/30/2023
NHLBI Role: Co-Investigator
Hormonal, Metabolic and Signaling Interactions in PAH
The overall goal of our program was to establish new therapeutic interventions to target the basic molecular etiology of PAH.

Conquer Cancer Award (Chen) 07/01/2022–06/30/2023
ASCO Role: Co-Investigator
Real-World Uptake and Efficacy of Immuno-Oncology Combinations in Metastatic Renal Cell Carcinoma and Validation of a Novel Biomarker: Leveraging Evidence from the ASCO's CancerlinQ Discovery Database
The overall goal was to improve the care and outcomes of patients with metastatic kidney cancer in the United States by leveraging evidence from real-world data.

VUMC66058 / U54 CA217450 (Quaranta) 04/01/2018–03/31/2023
VU/NCI Role: Site PI
Phenotype Heterogeneity and Dynamics in SCLC
This project focused on identifying mechanisms that drive cellular heterogeneity of small cell lung cancer as well as how to target this heterogeneity to improve therapy.

U24 CA163056-11 (Shyr) 03/15/2017–02/28/2023
NCI Role: PI
Barrett's Esophagus Translational Research Network Coordinating Center (BETRNetCC)
The major goal of this project was to provide administrative and leadership support for the Barrett's Esophagus Translational Research Network (BETRNet) by facilitating data collection, management, analysis, and dissemination across the BETRNet.

P01 HL129941-05 (Harrison) 08/01/2016–07/31/2022
NHLBI Role: Co-Investigator
The Role of Inflammation in Cardiovascular Disease
The overall goal of this project was to understand how immune cells including macrophages, dendritic cells (DCs) and T cells are activated and contribute to cardiovascular diseases including atherosclerosis and hypertension.

18FRN34110369 (Roden) 07/01/2018–06/30/2022
American Heart Association Role: Biostatistician
Atrial Fibrillation Network, SFRN
The major goal of this project was to advance understanding, prevention, diagnosis, and treatment of atrial fibrillation through the mechanism of an AHA strategically focused research network (SFRN).

R01 CA204819-01A1 (Pal) 07/01/2017–06/30/2022
NCI Role: Co-Investigator
Breast Cancer in Blacks: Impact of Genomics, Healthcare Use and Lifestyle on Outcomes (BRIGHT)
This study evaluated the impact of genetic factors (germline admixture assessment of common genetic variants), care patterns (treatment delay, underuse), lifestyle factors and co-morbidities (obesity, sedentary lifestyle, diabetes), and somatic gene expression profile (GEP) on BC-specific survival.

R01 HL133127 (Murray) 04/01/2017–03/31/2022
 NHLBI Role: Collaborator
 Novel Pathophysiological Targets in Atrial Fibrillation Susceptibility
 This study tested the hypotheses of mechanistic links between common diseases such as hypertension and obesity with atrial fibrillation.

R01 HL124935 (Knollmann) 06/01/2016–03/31/2022
 NHLBI Role: Co-Investigator
 Toward a Mechanism-Based Approach to Treating Atrial Fibrillation
 The major goal of this study was to investigate the molecular mechanisms responsible for atrial fibrillation, the most common form of chronic arrhythmia in the United States.

VUMC61566/U24 CA213274 (Shyr) 02/20/2017–01/31/2022
 Memorial Sloan-Kettering/NCI Role: Site PI
 Coordinating Center for the NCI Small Cell Lung Cancer Research Consortium

R01 NS0940941 (DeBaun) 08/01/2016–07/31/2021
 NINDS Role: Co-Investigator
 Primary Prevention of Stroke in Children with SCA in Sub-Saharan African II
 The major goal of this project was to determine if moderate dose hydroxyurea when compared to low dose hydroxyurea could successfully prevent strokes in high-risk children with SCA living in Nigeria and Ghana.

VUMC63588 / BRE 17107 (Mayer) 05/01/2018–04/30/2021
 AACR Role: Co-Investigator/Biostatistical Consultant
 Immunotherapy Combination Strategies in ER+ Metastatic Breast Cancer
 The aim of the study was to define a regimen(s) to improve the TME by increasing CD8+ T-cells making anti-PD-L1 therapy more effective.

VUMC07131 (Schaffner) 01/01/2020–12/31/2020
 CDC Role: Investigator
 Surveillance Services (emerging infectious diseases program)
 The goal of this project was to address key public health issues and inform public health policy and treatment guidelines, focusing on activities that lead directly to the prevention of diseases.

R01 CA200999 (Yang) 12/01/2015–11/30/2020
 NCI Role: Co-Investigator
 Sex Hormones, Phytoestrogens and Lung Cancer in Female Nonsmokers
 The major goal of this project was to fill important gaps in our knowledge about whether exposure to endogenous estrogens and plant estrogens (phytoestrogens) in nonsmoking women may relate to lung cancer risk and mortality.

P30 CA068485-22S3 (Pietenpol) 04/30/2016–08/31/2020
 NCI Role: Co-Investigator
 Investigation of the Effectiveness of Combination and Single-Agent Targeted Therapies in Novel and Established Melanoma Patient Derived (PDX) [Quantitative sciences supplement]

P30 CA068485 (Pietenpol) 09/10/2010–08/31/2020
 NCI Role: Core Leader
 Cancer Center Support Grant
 This grant provided the infrastructure support to facilitate basic, clinical and population-based research relevant to our mission to alleviate cancer death and suffering.

U01 CA196405 (Massion) 09/24/2015–08/31/2020
NIH/NCI Role: Co-Investigator
Cellular, Molecular and Quantitative Imaging Analysis of Screening-Detected Lung Adenocarcinoma
The goal of this project is to improve prediction models of early stage adenocarcinoma (ADC) of the lung by integrating quantitative imaging, molecular and cellular determinants to offer a paradigm-shift in the clinical management of patients with early ADC.

UM1 CA173640 (Shu) 09/18/2013–08/31/2020
NCI Role: Co-Investigator
Shanghai Men's Health Study
The major goal of this project was to conduct a long-term epidemiological study of cancer and other chronic diseases, with a focus on identifying modifiable protective dietary factors for cancers.

P01 HL116263 (Linton) 05/20/2016–04/30/2020
NHLBI Role: Co-Investigator
HDL Function in Human Disease
The major goal of this project was to define the mechanisms for HDL dysfunction in three distinct diseases associated with increased risk for atherosclerotic cardiovascular disease.

UM1 CA186689 (Vanderbilt PI: Berlin) 10/01/2014–02/29/2020
NCI/Primary: Yale University Role: Co-Investigator
ViKTriY Early Clinical Trials Consortium
The ultimate purpose of this project was to define better approaches for the development of novel anticancer agents that capitalize on the ability to characterize tumors molecularly and find appropriate biomarkers to select patients most likely to respond to specific agents.

P50 CA098131 (Mayer/Pietenpol/Arteaga) 04/30/2008–08/31/2019
NCI Roles: Co-Investigator and Core Leader
Discovery of Targetable Mechanisms of Endocrine and SPORE in Breast Cancer
This study conducted multidisciplinary, mechanism-based translational research of the highest possible impact to contribute meaningfully to measurable progress in breast cancer.

P50 CA095103 (Coffey) 05/01/2016–06/30/2019
NIH/NCI Role: Core Leader
SPORE in GI Cancer - Bridge Funding
The four projects of this study continued to focus on transforming how we diagnose and treat individuals with colorectal cancer and deepening our understanding of the pathobiology of colorectal neoplasia.

AHA 14 SFRN 20420046 (Harrison) 07/01/2014–06/30/2018
American Heart Association Role: Co-Investigator
Vanderbilt University Strategically Focused Prevention Research Center
The major goal of this project was to establish a prevention research center to expand and extend efforts to reduce coronary heart disease (CHD), stroke and risk.

R01 CA034590 (Richmond) 07/01/2013–06/30/2018
NCI Role: Co-Investigator
Chemokine Signals in the Pre-Metastatic Niche Inhibit Metastasis
The major goal of this project was to evaluate mechanisms of entrainment and to characterize the precise intracellular signal transduction pathways involved in chemokine mediated entrainment of leukocytes associated with progression of breast cancers.

U01 CA202979 (Blot) 07/21/2016–03/31/2017
 NCI Role: Co-Investigator
 Southern Community Cohort Study
 This long-term prospective epidemiologic study tracked cancer incidence among approximately 86,000 adults ages 40–79, two-thirds African American. Nested case-control studies utilized baseline questionnaire data and stored biologic specimens to address unanswered questions about the causes of cancer among African Americans and the determinants of health disparities.

R01 CA177372 (El-Rifai) 08/01/2013–07/31/2016
 NCI Role: Co-Investigator
 The Role of miRNA Network in Gastric Cancer
 The goal of this project was to gain further understanding of the role of *H. pylori* in shaping the miRNA signature and promoting the multi-step gastric tumorigenesis in order to identify diagnostic, prognostic and possibly therapeutic miRNA targets in gastric cancer.

R01 CA085492 (Moses) 03/01/2011–02/29/2016
 NCI Role: Co-Investigator
 TGF-Beta Suppression and Promotion of Mammary Carcinomas
 The major goal of this project is to delineate the mechanisms of both suppression and promotion of mammary tumors by TGF-beta, using mouse models.

R21 NS080639 (DeBaun) 09/30/2012–08/31/2014
 NINDS Role: Co-Investigator
 Primary Prevention of Strokes in Nigerian Children with Sickle Cell Disease
 The goal of this project was to determine the acceptability of randomization to HU vs. placebo for primary prevention of strokes in Nigerian children with sickle cell anemia (SCA) in preparation for a NIH-sponsored multicenter phase III trial.

National Lung Cancer Partnership (Shyr) 08/01/2012–07/31/2014
 National Lung Cancer Partnership Role: Principal Investigator
Lung Cancer Mutation Consortium Protocol
 The major goal of this project was to develop and implement a customized clinical relational database for use by the Lung Cancer Mutation Consortium.

P01 CA116087 (Peek) 01/01/2009–12/31/2013
 NCI Role: Co-Investigator
pylori-induced Inflammation and Gastric Cancer
 The major goal of this project was to delineate the molecular signaling events initiated by *H. pylori*-epithelial cell contact that regulate phenotypes related to gastric carcinogenesis.

R01 CA102162 (Moses) 12/01/2011–11/30/2013
 NCI Role: Co-Investigator
 TGF-beta in Mammary Development and Tumorigenesis
 The major goal of this study was to characterize Cre expression pattern, recombination, and phenotype in various TGF-beta recombinant mouse backgrounds.

RC2 CA14839 (Pao: Colorado) 09/01/2009–08/31/2013
 NIH Role: Core Leader
 Lung Cancer Mutation Consortium Trial

The major goal of this project was to establish a Lung Cancer Mutation Consortium (LCMC) consisting of 13 institutions with a major interest in lung cancer and genomic testing of lung cancer as documented by having major NCI grants in lung cancer.

P50 CA128323 (Gore) 09/22/2008–08/31/2013

NCI Role: Core Leader

Vanderbilt *in vivo* Cellular and Molecular Imaging Center

The major goal of this project was to establish a new *in vivo* cellular and molecular imaging center at Vanderbilt University, dedicated to highly innovative molecular imaging studies of cancer biology.

U54 CA091405 (Moses) 09/25/2006–07/31/2012

NIH/NCI Role: Co-Investigator

MMC and VICC: Partners in Eliminating Cancer Disparities

A comprehensive cancer research partnership between MMC and VICC

R01 CA129961 (Moses) 04/01/2008–03/31/2012

NCI Role: Co-Investigator

Evaluation of MRI Biomarkers of Breast Cancer Response

The proposed research combined several new imaging methods to obtain quantitative information on how breast tumors respond to treatment.

P50 CA090949 (Carbone) 09/26/2007–03/31/2012

NIH/NCI Role: Core Leader

SPORE in Lung Cancer

The major goal of this project was to investigate the molecular features of tumors or tumor-host interactions that determine their clinical behavior and represent potential molecular targets for interventions.

U54 CA126505 (Matrisian) 09/25/2006–08/31/2011

NIH/NCI Role: Co-Investigator

Paracrine TGF-Beta Signaling in Tumor Initiation and Progression

The major goal of this project was to establish the Vanderbilt University Tumor Microenvironment Network (VUTMEN) to contribute to the generation of a comprehensive understanding of the role of the tumor stroma.

P50 CA098131 (Moses) 09/25/2006–07/31/2011

NCI Role: Co-Investigator

HER (erbB) Inhibitors in Untreated Operable Breast Cancer (SPORE in Breast Cancer Supplement)

This supplement provided clinical trial, administrative, and correlative studies support for inter-SPORE clinical trials with the University of Alabama (Birmingham), University of North Carolina (Chapel Hill), and Dana-Farber Cancer Institute.

R01 DK058587 (Peek) 09/01/2007–06/30/2011

NIDDKD Role: Core Leader

pylori and Gastrointestinal Biology

The major goal of this project was to investigate effects of *H. pylori* on prostaglandin biology using conditionally immortalized gastric cells.

P50 GM015431 (Morrow) 07/03/2006–06/30/2011

NIGMS Role: Co-Investigator

Research Center for Pharmacology and Drug Toxicology

The focus of the Center is research related to eicosanoid biology and pharmacology.

R01 CA080195 (Arteaga) 04/01/2005–03/31/2011
NCI Role: Co-Investigator
ErbB2-targeted Anti-Tumor Strategies in Breast Cancer
The major goal of this project was to identify mechanisms of resistance to anti-HER2 drugs, contributing to the eventual elimination of HER2+ breast cancer.

R01 DK73902 (Peek) 04/01/2006–12/31/2010
NIDDKD Role: Co-Investigator
Mechanisms that Regulate *Helicobacter Pylori*-Induced Beta-Catenin Activation
The overarching objective of this program project was delineation of the molecular signaling events initiated by *H. pylori*:epithelial cell contact that regulate phenotypes related to gastric carcinogenesis.

R01 CA085492 (Moses) 12/15/2005–11/30/2010
NCI Role: Co-Investigator
TGF-beta Suppression and Promotion of Mammary Carcinomas
This study was to determine the effects of systemic inhibition of TGF-beta-signaling on mammary tumor formation and metastases from MMTV-c-neu and MMTV-PyVmT-induced mammary tumors in the context Tgfr2 knockout in mammary epithelial cells effected by both MMTV-Cre and WAP-Cre.

U01 CA114771 (Carbone) 09/30/2005–05/31/2010
NCI Role: Co-Investigator
Molecular Signatures of Lung Cancer
This team evaluated the potential clinical usefulness of several molecular signatures already developed with a variety of molecular analysis technologies, including DNA, RNA and protein-based technologies addressing both diagnostic and predictive signatures.

P01 CA077839 (DuBois) 05/01/2004–04/30/2009
NCI Role: Co-Investigator
Mechanisms for Chemoprevention of Cancer
The overall goal of this PPG was to determine the molecular mechanisms involved in the chemoprevention of cancer by non-steroidal anti-inflammatory drugs (NSAIDS). The studies specifically tested hypotheses that the cyclooxygenase (COX) pathway and/or its eicosanoid products play a role in certain aspects of breast, cervical, ovarian, and colorectal carcinogenesis.

R21 CA099269 (Berlin) 09/18/2003–08/31/2005
NCI Role: Co-Investigator
PS-341 in Hepatocellular Carcinoma: A Phase II Trial
Specific aims for this study were to evaluate (1) the antitumor effect of PS-341 in hepatocellular carcinoma patients, (2) the effect of PS-341 on 26S proteasome activity in peripheral white blood cells (WBC's) and patient serum, and (3) the effect of PS-341 on intratumoral NF-kB activation, on tumor apoptosis and 26S proteasome activity.

STATISTICAL SOFTWARE

R, S-PLUS, SAS, MATLAB, Stata, SPSS, BDMP, SUDAAN, SOLAS, StaXact, Resampling Stats, East, nQuery Advisor, PASS, NCSS, StudySize, SYSTAT, GLIM, Minitab, EGRET, Epicure, PC Cluster, etc.

OPERATING SYSTEMS & LANGUAGES

LINUX, WINDOWS, DOS, UNIX, VAX/VMS, MAC, BASIC, FORTRAN, COBOL, C, C++, C-sharp, HTML, JAVA, etc.

INTERESTS

- Consulting on biomedical problems, designing experiments and data analysis, clinical trials design and analysis.
- Applied multivariate analysis, especially repeated measures procedures and high-dimensional data analysis.
- Applied bioinformatic and statistical methods in modern molecular biology: genomics and proteomics research.

BOOKS/BOOK CHAPTERS/BOOK REVIEWS

1. **Shyr Y** (2002). *Statistics with Applications to the Biomedical Science*. Tamkang Chair Lecture Series 132. Tamkang University, Taipei, Taiwan.
2. **Shyr Y** and Kim KM (2003). "Weighted Flexible Compound Covariate Method for Classifying Microarray Data." In *A Practical Approach to Microarray Data Analysis* (D Berrar, ed.), 186-201. Kluwer.
3. **Shyr Y** (2006). "Statistical Approaches for High Dimensional Data Derived from High Throughput Assays: A Case Study of Protein Expression Levels in Lung Cancer." In *Handbook of Statistics in Clinical Oncology*, 2nd ed. (J Crowley, ed.), 457-470. Chapman and Hall/CRC.
4. Hong D and **Shyr Y**, eds. (2007). *Quantitative Medical Data Analysis Using Math Tools and Statistical Techniques*. World Scientific.
5. Hong D, Li HM, Li M, and **Shyr Y** (2007). "Evolution Algorithm and Recent Progress on Proteomic Data Preprocessing Using." In *Quantitative Medical Data Analysis*, 155-174.
6. Hong D, Yuan X, and **Shyr Y** (2007). "Survival Model and Estimation for Lung Cancer Patients." In *Quantitative Medical Data Analysis*, 195-216.
7. Hong D and **Shyr Y** (2008). "Mathematical Framework and Wavelets Applications in Proteomics for Cancer Study." In *Handbook of Cancer Models with Applications* (WY Tan and L Hanin, eds.), 471-499. World Scientific.
8. **Shyr Y** (2009). "Design and Conduct of Clinical Trials for Breast Cancer." In *The Breast: Comprehensive Management of Benign and Malignant Disorders*, 4th ed. (KI Bland and EM Copeland, eds.). Elsevier.
9. **Shyr Y** (2010). "Prediction of Antitumor Response." In *Principles of Anticancer Drug Development* (M Hidalgo, ed.), 257-274. Springer.
10. **Shyr Y**. Review of book: *Design and Analysis of Clinical Trials with Time-to-Event Endpoint*. *Biometrics* 2010;66:659-660.
11. Ye F and **Shyr Y** (2015). "Statistical Considerations in Predictive and Prognostic Markers." In *Biomarkers in Cancer Screening and Early Detection* (S Srivastava, ed.), 245-255. Wiley-Blackwell.
12. Hoskins S, Shyr D, and **Shyr Y** (2017). "Sample Size Calculation for Differential Expression Analysis of RNA-seq Data." In *Frontiers of Biostatistical Methods and Applications in Clinical Oncology* (S Matsui and J Crowley, eds.), 359-379. Springer.
13. Klimberg, VS, **Shyr Y**, and Wells T (2018). "Design and Conduct of Clinical Trials for Breast Cancer." In *The Breast: Comprehensive Management of Benign and Malignant Disorders*, 5th ed. (KI Bland and EM Copeland, eds.). Elsevier.

PUBLICATIONS (h-index = 122)

1. Baliga P, Merion RM, Turcotte JG, Ham JM, Henley KS, Lucey MR, Schork A, **Shyr Y**, Campbell DA, Jr. Preoperative risk factor assessment in liver transplantation. *Surgery* 1992;112(4):704-710; discussion 710-701.
2. Calkins H, **Shyr Y**, Schork A, Kadish A, Morady F. Effects of quinidine and amiodarone on blood pressure during rapid ventricular pacing in coronary artery disease. *Am J Cardiol* 1992;70(13):1206-1209.

3. Levy S, Lauribe P, Dolla E, Kou W, Kadish A, Calkins H, Pagannelli F, Moyal C, Bremond M, Schork A, et al. A randomized comparison of external and internal cardioversion of chronic atrial fibrillation. *Circulation* 1992;86(5):1415-1420.
4. Wang HL, Burgett FG, **Shyr Y**. The relationship between restoration and furcation involvement on molar teeth. *J Periodontol* 1993;64(4):302-305.
5. Wang HL, Yeh CT, Smith F, Burgett FG, Richards P, **Shyr Y**, O'Neal R. Evaluation of ferric oxalate as an agent for use during surgery to prevent post-operative root hypersensitivity. *J Periodontol* 1993;64(11):1040-1044.
6. Wang HL, Burgett FG, **Shyr Y**, Ramfjord S. The influence of molar furcation involvement and mobility on future clinical periodontal attachment loss. *J Periodontol* 1994;65(1):25-29.
7. Wang HL, O'Neal RB, Thomas CL, **Shyr Y**, MacNeil RL. Evaluation of an absorbable collagen membrane in treating Class II furcation defects. *J Periodontol* 1994;65(11):1029-1036.
8. Wang HL, Pappert TD, Castelli WA, Chiego DJ, Jr., **Shyr Y**, Smith BA. The effect of platelet-derived growth factor on the cellular response of the periodontium: An autoradiographic study on dogs. *J Periodontol* 1994;65(5):429-436.
9. Wang HL, Yuan K, Burgett F, **Shyr Y**, Syed S. Adherence of oral microorganisms to guided tissue membranes: an in vitro study. *J Periodontol* 1994;65(3):211-218.
10. Young PC, **Shyr Y**, Schork MA. The role of the primary care physician in the care of children with serious heart disease. *Pediatrics* 1994;94(3):284-290.
11. Calkins H, **Shyr Y**, Frumin H, Schork A, Morady F. The value of the clinical history in the differentiation of syncope due to ventricular tachycardia, atrioventricular block, and neurocardiogenic syncope. *Am J Med* 1995;98(4):365-373.
12. Chen CC, Wang HL, Smith F, Glickman GN, **Shyr Y**, O'Neal RB. Evaluation of a collagen membrane with and without bone grafts in treating periodontal intrabony defects. *J Periodontol* 1995;66(10):838-847.
13. Herman GE, Schork MA, **Shyr Y**, Elfont EA, Arbit S. Histologists, microtomy, chronic repetitive trauma, and techniques to avoid injury: 1. A statistical evaluation of the job functions performed by histologists. *Journal of Histotechnology* 1995;18(2):139-143.
14. Loder RT, Farley FA, Herring JA, Schork MA, **Shyr Y**. Bone age determination in children with Legg-Calve-Perthes disease: A comparison of two methods. *J Pediatr Orthop* 1995;15(1):90-94.
15. Loder RT, Urquhart A, Steen H, Graziano G, Hensinger RN, Schlesinger A, Schork MA, **Shyr Y**. Variability in Cobb angle measurements in children with congenital scoliosis. *Journal of Bone and Joint Surgery (British Volume)* 1995;77(5):768-770.
16. Morrow JD, Frei B, Longmire AW, Gaziano JM, Lynch SM, **Shyr Y**, Strauss WE, Oates JA, Roberts LJ, 2nd. Increase in circulating products of lipid peroxidation (F2-isoprostanes) in smokers: Smoking as a cause of oxidative damage. *N Engl J Med* 1995;332(18):1198-1203.
17. Vrlenich LA, Bozynski ME, **Shyr Y**, Schork MA, Roloff DW, McCormick MC. The effect of bronchopulmonary dysplasia on growth at school age. *Pediatrics* 1995;95(6):855-859.
18. Calkins H, Bahu M, **Shyr Y**, Schork A, Bolling S, Kou W, Kirsch M, Morady F. Relationship of amiodarone to postoperative complications of transthoracic implantation of automatic implantable cardioverter defibrillators. *Panminerva Medica* 1996;38(2):89-97.
19. Chomsky DB, Lang CC, Rayos GH, **Shyr Y**, Yeoh TK, Pierson RN, 3rd, Davis SF, Wilson JR. Hemodynamic exercise testing: A valuable tool in the selection of cardiac transplantation candidates. *Circulation* 1996;94(12):3176-3183.
20. Darbar D, Davidson NC, Gillespie N, Choy AM, Lang CC, **Shyr Y**, McNeill GP, Pringle TH, Struthers AD. Diagnostic value of B-type natriuretic peptide concentrations in patients with acute myocardial infarction. *Am J Card* 1996;78(3):284-287.
21. Johnson DH, Paul DM, Hande KR, **Shyr Y**, Blanke C, Murphy B, Lewis M, De Vore RF, 3rd. Paclitaxel plus carboplatin in advanced non-small-cell lung cancer: A phase II trial. *J Clin Oncol* 1996;14(7):2054-2060.

22. Malicky DM, Soslowsky LJ, Blasier RB, **Shyr Y**. Anterior glenohumeral stabilization factors: progressive effects in a biomechanical model. *Journal of Orthopaedic Research* 1996;14(2):282-288.
23. Norris AE, Ford K, **Shyr Y**, Schork MA. Heterosexual experiences and partnerships of urban, low-income African-American and Hispanic youth. *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology* 1996;11(3):288-300.
24. Zic JA, Stricklin GP, Greer JP, Kinney MC, **Shyr Y**, Wilson DC, King LE, Jr. Long-term follow-up of patients with cutaneous T-cell lymphoma treated with extracorporeal photochemotherapy. *Journal of the American Academy of Dermatology* 1996;35(6):935-945.
25. Blanke C, DeVore R, **Shyr Y**, Epstein B, Murray M, Hande K, Stewart S, Johnson D. A pilot study of protracted low dose cisplatin and etoposide with concurrent thoracic radiotherapy in unresectable stage III non-small cell lung cancer. *International Journal of Radiation Oncology Biology Physics* 1997;37(1):111-116.
26. Chinery R, Brockman JA, Peeler MO, **Shyr Y**, Beauchamp RD, Coffey RJ. Antioxidants enhance the cytotoxicity of chemotherapeutic agents in colorectal cancer: A p53-independent induction of p21(WAF1/CIP1) via C/EBP beta. *Nature Medicine* 1997;3(11):1233-1241.
27. Choy H, DeVore RF, Hande KR, Porter LL, Rosenblatt P, Yunus F, Schlabach L, Smith C, **Shyr Y**, LaPorte K, Johnson DH. Preliminary analysis of a phase II study of paclitaxel, carboplatin, and hyperfractionated radiation therapy for locally advanced inoperable non-small cell lung cancer. *Seminars in Oncology* 1997;24(4):21-26.
28. Coomer RW, Schulman G, Breyer JA, **Shyr Y**. Ambulatory blood pressure monitoring in dialysis patients and estimation of mean interdialytic blood pressure. *Am J Kidney Dis* 1997;29(5):678-684.
29. Goral S, Ynares C, **Shyr Y**, Yeoh TK, Johnson HK. Long-term renal function in heart transplant recipients receiving cyclosporine therapy. *Journal of Heart and Lung Transplantation* 1997;16(11):1106-1112.
30. Kemp WE, Jr., Kerins DM, **Shyr Y**, Byrd BF, 3rd. Optimal Alunex dosing for enhancement of Doppler tricuspid regurgitation spectra. *Am J Card* 1997;79(2):232-234.
31. May RE, Himmelfarb J, Yenicesu M, Knights S, Ikizler TA, Schulman G, Hernanz-Schulman M, **Shyr Y**, Hakim RM. Predictive measures of vascular access thrombosis: A prospective study. *Kidney International* 1997;52(6):1656-1662.
32. Metts JC, Kotkin L, Kasper S, **Shyr Y**, Adams MC, Brock JW. Genital malformations and coexistent urinary tract or spinal anomalies in patients with imperforate anus. *Journal of Urology* 1997;158(3 Pt 2):1298-1300.
33. Nicholson B, Paul D, **Shyr Y**, Garrett M, Hande KR, Johnson DH. Paclitaxel/5-fluorouracil/leucovorin in metastatic breast cancer: A Vanderbilt cancer center phase II trial. *Semin Oncol* 1997;24(4):20-23.
34. **Shyr Y**, Kshirsagar AM. A formula for a missing plot in a general incomplete block design, when recovery of interblock information is used. *Commun Stat Theory Methods* 1997;26(12):2855-2860.
35. **Shyr Y**, Kshirsagar AM. Stepwise canonical analysis in categorical data. *Commun Stat Theory Methods* 1997;26(7):1575-1583.
36. Venkov CD, Su M, **Shyr Y**, Vaughan DE. Ethanol-induced alterations in the expression of endothelial-derived fibrinolytic components. *Fibrinolysis & Proteolysis* 1997;11(2):115-118.
37. Wang HL, MacNeil RL, Thomas C, **Shyr Y**, Syed S. The effect of an absorbable collagen membrane on the subgingival microflora. *Periodontal Clinical Investigations* 1997;19(1):27-35.
38. Chinery R, Beauchamp RD, **Shyr Y**, Kirkland SC, Coffey RJ, Morrow JD. Antioxidants reduce cyclooxygenase-2 expression, prostaglandin production, and proliferation in colorectal cancer cells. *Cancer Research* 1998;58(11):2323-2327.
39. Cowen ME, Dusseau DJ, Toth BG, Guisinger C, Zodet MW, **Shyr Y**. Casemix adjustment of managed care claims data using the Clinical Classification for Health Policy Research method. *Medical Care* 1998;36(7):1108-1113.

40. Evanson JA, Himmelfarb J, Wingard R, Knights S, **Shyr Y**, Schulman G, Ikizler TA, Hakim RM. Prescribed versus delivered dialysis in acute renal failure patients. *American Journal of Kidney Diseases* 1998;32(5):731-738.
41. Fitzpatrick JM, Hill DLG, **Shyr Y**, West J, Studholme C, Maurer CR. Visual assessment of the accuracy of retrospective registration of MR and CT images of the brain. *IEEE Transactions on Medical Imaging* 1998;17(4):571-585.
42. Lamps LW, Pinson CW, Raiford DS, **Shyr Y**, Scott MA, Washington MK. The significance of microabscesses in liver transplant biopsies: A clinicopathological study. *Hepatology* 1998;28(6):1532-1537.
43. Neyra NR, Ikizler TA, May RE, Himmelfarb J, Schulman G, **Shyr Y**, Hakim RM. Change in access blood flow over time predicts vascular access thrombosis. *Kidney International* 1998;54(5):1714-1719.
44. Ong MMA, Eber RM, Korsnes MI, MacNeil RL, Glickman GN, **Shyr Y**, Wang HL. Evaluation of a bioactive glass alloplast in treating periodontal intrabony defects. *J Periodontol* 1998;69(12):1346-1354.
45. **Shyr Y**. Applied biostatistical method and models for survival analysis. *Medical Newsletter of Chang Gung Memorial Hospital (Taiwan)* 1998;8:24-27.
46. **Shyr Y**. Applying understanding and not misusing medical biostatistics. *Medical Newsletter of Chang Gung Memorial Hospital (Taiwan)* 1998;8:24-25.
47. **Shyr Y**. A canonical form of Anderson's classification statistic. *Communications in Statistics-Theory and Methods* 1998;27(3):577-587.
48. **Shyr Y**. The limitations and extensions of Cox model. *Medical Newsletter of Chang Gung Memorial Hospital (Taiwan)* 1998;8:26-28.
49. Washington K, Chiappori A, Hamilton K, **Shyr Y**, Blanke C, Johnson D, Sawyers J, Beauchamp D. Expression of beta-catenin, alpha-catenin, and E-cadherin in Barrett's esophagus and esophageal adenocarcinomas. *Modern Pathology* 1998;11(9):805-813.
50. Wolinsky PR, Banit D, Parker RE, **Shyr Y**, Snapper JR, Rutherford EJ, Johnson KD. Reamed intramedullary femoral nailing after induction of an "ARDS-like" state in sheep: Effect on clinically applicable markers of pulmonary function. *Journal of Orthopaedic Trauma* 1998;12(3):169-175.
51. Wolinsky PR, McCarty EC, **Shyr Y**, Johnson KD. Length of operative procedures: reamed femoral intramedullary nailing performed with and without a fracture table. *Journal of Orthopaedic Trauma* 1998;12(7):485-495.
52. Becker BN, Coomer RW, Fotiadis C, Evanson J, **Shyr Y**, Hakim RM. Risk factors for hospitalization in well-dialyzed chronic hemodialysis patients. *American Journal of Nephrology* 1999;19(5):565-570.
53. Chang AC, **Shyr Y**, Groves J, Chomsky DB, Davis SF, Wilson JR, Drinkwater DC, Pierson RN, Merrill WH. The utility of exercise testing after cardiac transplantation in older patients. *J Surg Res* 1999;81(1):48-54.
54. Choy H, LaPorte K, Knill-Selby E, Mohr P, **Shyr Y**. Esophagitis in combined modality therapy for locally advanced non-small cell lung cancer. *Seminars in Radiation Oncology* 1999;9(2):90-96.
55. Cmelak AJ, Choy H, **Shyr Y**, Mohr P, Glantz MJ, Johnson DH. National survey on prophylactic cranial irradiation: Differences in practice patterns between medical and radiation oncologists. *International Journal of Radiation Oncology Biology Physics* 1999;44(1):157-162.
56. Delbeke D, Rose DM, Chapman WC, Pinson CW, Wright JK, Beauchamp RD, **Shyr Y**, Leach SD. Optimal interpretation of FDG PET in the diagnosis, staging and management of pancreatic carcinoma. *Journal of Nuclear Medicine* 1999;40(11):1784-1791.
57. Evanson JA, Ikizler TA, Wingard R, Knights S, **Shyr Y**, Schulman G, Himmelfarb J, Hakim RM. Measurement of the delivery of dialysis in acute renal failure. *Kidney International* 1999;55(4):1501-1508.
58. Herline AJ, Pinson CW, Wright JK, Debelak J, **Shyr Y**, Harley D, Merrill W, Starkey T, Pierson R, Chapman WC. Acute pancreatitis after cardiac transplantation and other cardiac procedures: Case-control analysis in 24,631 patients. *American Surgeon* 1999;65(9):819-825.

59. Hohenfellner K, Hunley TE, Brezinska R, Brodhag P, **Shyr Y**, Brenner W, Habermehl P, Kon V. ACE I/D gene polymorphism predicts renal damage in congenital uropathies. *Pediatric Nephrology* 1999;13(6):514-518.
60. Holcomb GW, Morgan WM, Neblett WW, Pietsch JB, O'Neill JA, **Shyr Y**. Laparoscopic cholecystectomy in children: Lessons learned from the first 100 patients. *J Pediatr Surg* 1999;34(8):1236-1240.
61. Hughes CA, O'Gorman LA, **Shyr Y**, Schork MA, Bozynski MEA, McCormick MC. Cognitive performance at school age of very low birth weight infants with bronchopulmonary dysplasia. *Journal of Developmental and Behavioral Pediatrics* 1999;20(1):1-8.
62. Ikizler TA, Wingard RL, Harvell J, **Shyr Y**, Hakim RM. Association of morbidity with markers of nutrition and inflammation in chronic hemodialysis patients: A prospective study. *Kidney International* 1999;55(5):1945-1951.
63. Lowe LH, Banks WJ, **Shyr Y**. Pyloric ratio: Efficacy in the diagnosis of hypertrophic pyloric stenosis. *Journal of Ultrasound in Medicine* 1999;18(11):773-777.
64. Norgaard P, Law B, Joseph H, Page DL, **Shyr Y**, Mays D, Pietenpol JA, Kohl NE, Oliff A, Coffey RJ, Poulsen HS, Moses HL. Treatment with farnesyl-protein transferase inhibitor induces regression of mammary tumors in transforming growth factor (TGF) alpha and TGF alpha/neu transgenic mice by inhibition of mitogenic activity and induction of apoptosis. *Clinical Cancer Research* 1999;5(1):35-42.
65. Rehman SU, Pupim LB, **Shyr Y**, Hakim R, Ikizler TA. Intradialytic serial vascular access flow measurements. *American Journal of Kidney Diseases* 1999;34(3):471-477.
66. **Shyr Y**. Statistical strategies for modeling the quasi-sinusoidality of time-qualified data. *Statistical Modeling* 1999;14:664-668.
67. Wolinsky PR, McCarty E, **Shyr Y**, Johnson K. Reamed intramedullary nailing of the femur: 551 cases. *Journal of Trauma-Injury Infection and Critical Care* 1999;46(3):392-399.
68. Zhang JP, Blum MG, Chang AC, **Shyr Y**, Blair KSA, Awwad M, Pierson RN. Immunohistologic evaluation of mechanisms mediating hyperacute lung rejection, and the effect of treatment with K76-COOH, FUT-175, and anti-Gal column immune adsorption. *Xenotransplantation* 1999;6(4):249-261.
69. Chakravarthy A, Nicholson B, Kelley M, Beauchamp D, Johnson D, Frexes-Steed M, Simpson J, **Shyr Y**, Pietenpol J. A pilot study of neoadjuvant paclitaxel and radiation with correlative molecular studies in stage II/III breast cancer. *Clinical Breast Cancer* 2000;1(1):68-71.
70. Choy H, Devore RF, Hande KR, Porter LL, Rosenblatt P, Yunus F, Schlabach L, Smith C, **Shyr Y**, Johnson DH. A phase II study of paclitaxel, carboplatin, and hyperfractionated radiation therapy for locally advanced inoperable non-small-cell lung cancer (A Vanderbilt cancer center affiliate network study). *International Journal of Radiation Oncology Biology Physics* 2000;47(4):931-937.
71. Choy H, **Shyr Y**, Cmelak AJ, Mohr PJ, Johnson DH. Patterns of practice survey for non-small cell lung carcinoma in the US. *Cancer* 2000;88(6):1336-1346.
72. Franke JJ, Gilbert WB, Grier J, Koch MO, **Shyr Y**, Smith JA. Early post-prostatectomy pelvic floor biofeedback. *Journal of Urology* 2000;163(1):191-193.
73. Hernanz-Schulman M, Foster C, Maxa R, Battles G, Dutt P, Stratton C, Holburn G, Schulman G, Neblett WW, **Shyr Y**, Hakim RR, Vanholder R, Heller RM. Experimental study of mortality and morbidity of contrast media and standardized fecal dose in the peritoneal cavity. *Pediatr Radiol* 2000;30(6):369-378.
74. Komhoff M, Guan YF, Shappell HW, Davis L, Jack G, **Shyr Y**, Koch MO, Shappell SB, Breyer MD. Enhanced expression of cyclooxygenase-2 in high grade human transitional cell bladder carcinomas. *American Journal of Pathology* 2000;157(1):29-35.
75. Lowe LH, Penney MW, Scheker LE, Perez R, Stein SM, Heller RM, **Shyr Y**, Hernanz-Schulman M. Appendicolith revealed on CT in children with suspected appendicitis: How specific is it in the diagnosis of appendicitis? *American Journal of Roentgenology* 2000;175(4):981-984.
76. Mertz H, Morgan V, Tanner G, Pickens D, Price R, **Shyr Y**, Kessler R. Regional cerebral activation in irritable bowel syndrome and control subjects with painful and nonpainful rectal distention. *Gastroenterology* 2000;118(5):842-848.

77. Mizobata S, Tompkins K, Simpson JF, **Shyr Y**, Primus FJ. Induction of cytotoxic T cells and their antitumor activity in mice transgenic for carcinoembryonic antigen. *Cancer Immunology Immunotherapy* 2000;49(6):285-295.
78. Neyra NR, Hakim RM, **Shyr Y**, Ikizler TA. Serum transferrin and serum prealbumin are early predictors of serum albumin in chronic hemodialysis patients. *Journal of Renal Nutrition* 2000;10(4):184-190.
79. Nicholson BP, Paul DM, Hande KR, **Shyr Y**, Meshad M, Cohen A, Johnson DH. Paclitaxel, 5-fluorouracil, and leucovorin (TFL) in the treatment of metastatic breast cancer. *Clinical Breast Cancer* 2000;1(2):136-143; discussion 144.
80. Roberts JR, **Shyr Y**, Christian KR, Drinkwater D, Merrill W. Preemptive gastrointestinal tract management reduces aspiration and respiratory failure after thoracic operations. *Journal of Thoracic and Cardiovascular Surgery* 2000;119(3):449-452.
81. **Shyr Y**. The current challenges and future of bioinformatics. *Proceeding of Taiwan Biotechnology Symposiums* 2000:15-22.
82. **Shyr Y**. The statistical strategies for modeling the relationship between multiple variable and RNA expression data and clinical endpoints. *Proceeding of Taiwan Biotechnology Symposiums* 2000:1-14.
83. Stefansic JD, Herline AJ, **Shyr Y**, Chapman WC, Fitzpatrick JM, Dawant BM, Galloway RL. Registration of physical space to laparoscopic image space for use in minimally invasive hepatic surgery. *IEEE Transactions on Medical Imaging* 2000;19(10):1012-1023.
84. Tingstad EM, Wolinsky PR, **Shyr Y**, Johnson KD. Effect of immediate weightbearing on plated fractures of the humeral shaft. *Journal of Trauma-Injury Infection and Critical Care* 2000;49(2):278-280.
85. Washington K, Wright K, **Shyr Y**, Hunter EB, Olson S, Raiford DS. Hepatic stellate cell activation in nonalcoholic steatohepatitis and fatty liver. *Human Pathology* 2000;31(7):822-828.
86. Xu XC, Clarke P, Szalai G, Shively JE, Williams LE, **Shyr Y**, Shi EG, Primus FJ. Targeting and therapy of carcinoembryonic antigen-expressing tumors in transgenic mice with an antibody-interleukin 2 fusion protein. *Cancer Research* 2000;60(16):4475-4484.
87. Amorino GP, Lee H, Holburn GE, Paschal CB, Hercules SK, **Shyr Y**, Steffen RP, Choy H. Enhancement of tumor oxygenation and radiation response by the allosteric effector of hemoglobin, RSR13. *Radiation Research* 2001;156(3):294-300.
88. Blanke CD, Stipanov M, Morrow J, Rothenberg M, Chinery R, **Shyr Y**, Coffey R, Johnson DH, Leach SD, Beauchamp RD. A phase I study of vitamin E, 5-fluorouracil and leucovorin for advanced malignancies. *Investigational New Drugs* 2001;19(1):21-27.
89. Choy H, DeVore RF, Hande KR, Porter LL, Rosenblatt PA, Slovis B, Laporte K, **Shyr Y**, Johnson DH. Phase I trial of outpatient weekly docetaxel, carboplatin and concurrent thoracic radiation therapy for stage III unresectable non-small-cell lung cancer: a Vanderbilt cancer center affiliate network (VCCAN) trial. *Lung Cancer* 2001;34(3):441-449.
90. Deane NG, Parker MA, Aramandla R, Diehl L, Lee WJ, Washington MK, Nanney LB, **Shyr Y**, Beauchamp RD. Hepatocellular carcinoma results from chronic cyclin D1 overexpression in transgenic mice. *Cancer Research* 2001;61(14):5389-5395.
91. Dowell JE, Garrett AM, **Shyr Y**, Johnson DH, Hande KR. A randomized phase II trial in patients with carcinoma of an unknown primary site. *Cancer* 2001;91(3):592-597.
92. Dowell JE, Johnson DH, Rogers JS, **Shyr Y**, McCullough N, Krozely P, DeVore RF. A phase II trial of 6-hydroxymethylacylfulvene (MGI-114, irofulven) in patients with advanced non-small cell cancer previously treated with chemotherapy. *Investigational New Drugs* 2001;19(1):85-88.
93. Jagasia MH, Langer CJ, Johnson DH, Yunus F, Rodgers JS, Schlabach LL, Cohen AG, **Shyr Y**, Carbone DP, DeVore RF. Weekly irinotecan and cisplatin in advanced non-small cell lung cancer: A multicenter phase II study. *Clinical Cancer Research* 2001;7(1):68-73.
94. Lowe LH, Penney MW, Stein SM, Heller RM, Neblett WW, **Shyr Y**, Hernanz-Schulman M. Unenhanced limited CT of the abdomen in the diagnosis of appendicitis in children: Comparison with sonography. *American Journal of Roentgenology* 2001;176(1):31-35.

95. McCarley P, Wingard RL, **Shyr Y**, Pettus W, Hakim RM, Ikizler TA. Vascular access blood flow monitoring reduces access morbidity and costs. *Kidney International* 2001;60(3):1164-1172.
96. McCarty EC, Spindler KP, Tingstad E, **Shyr Y**, Higgins M. Does intraarticular morphine improve pain control with femoral nerve block after anterior cruciate ligament reconstruction? *American Journal of Sports Medicine* 2001;29(3):327-332.
97. Montgomery E, Bronner MP, Goldblum JR, Greenson JK, Haber MM, Hart J, Lamps LW, Lauwers GY, Lazenby AJ, Lewin DN, Robert ME, Toledano AY, **Shyr Y**, Washington K. Reproducibility of the diagnosis of dysplasia in Barrett esophagus: A reaffirmation. *Human Pathology* 2001;32(4):368-378.
98. Murphy BA, Cmelak A, Burkey B, Nettekville J, **Shyr Y**, Douglas S, Smith W. Topoisomerase I inhibitors in the treatment of head and neck cancer. *Oncology (Williston Park)* 2001;15(7 Suppl 8):47-52.
99. Pietrow PK, Parekh DJ, Smith JA, Jr., **Shyr Y**, Cookson MS. Health related quality of life assessment after radical prostatectomy in men with prostate specific antigen only recurrence. *Journal of Urology* 2001;166(6):2286-2290.
100. Saadeh E, Ikizler TA, **Shyr Y**, Hakim RM, Himmelfarb J. Recombinant human growth hormone in patients with acute renal failure. *Journal of Renal Nutrition* 2001;11(4):212-219.
101. Sofowora GG, Choo EF, Mayo G, **Shyr Y**, Wilkinson GR. In vivo inhibition of human CYP1A2 activity by oltipraz. *Cancer Chemotherapy and Pharmacology* 2001;47(6):505-510.
102. Tham KT, Peek RM, Atherton JC, Cover TL, Perez-Perez GI, **Shyr Y**, Blaser MJ. *Helicobacter pylori* genotypes, host factors, and gastric mucosal histopathology in peptic ulcer disease. *Human Pathology* 2001;32(3):264-273.
103. Wang HL, Bunyaratavej P, Labadie M, **Shyr Y**, MacNeil RL. Comparison of 2 clinical techniques for treatment of gingival recession. *Journal of Periodontology* 2001;72(10):1301-1311.
104. Washington K, Debelak JP, Gobbell C, Sztipanovits DR, **Shyr Y**, Olson S, Chapman WC. Hepatic cryoablation-induced acute lung injury: Histopathologic findings. *J Surg Res* 2001;95(1):1-7.
105. Boyd AS, **Shyr Y**, King LE, Jr. Basal cell carcinoma in young women: An evaluation of the association of tanning bed use and smoking. *Journal of the American Academy of Dermatology* 2002;46(5):706-709.
106. Caglar K, Fedje L, Dimmitt R, Hakim RM, **Shyr Y**, Ikizler TA. Therapeutic effects of oral nutritional supplementation during hemodialysis. *Kidney International* 2002;62(3):1054-1059.
107. Chen S-Y, Wang H-L, Glickman GN, **Shyr Y**, MacNeil RL. Multivariate analysis of factors influencing outcomes of regenerative therapy: A retrospective study. *International Chinese Journal of Dentistry* 2002;2:50-59.
108. Hallahan DE, Geng L, **Shyr Y**. Effects of intercellular adhesion molecule 1 (ICAM-1) null mutation on radiation-induced pulmonary fibrosis and respiratory insufficiency in mice. *JNCI* 2002;94(10):733-741.
109. Himmelfarb J, Evanson J, Hakim RM, Freedman S, **Shyr Y**, Ikizler TA. Urea volume of distribution exceeds total body water in patients with acute renal failure. *Kidney International* 2002;61(1):317-323.
110. Ikizler TA, Morrow JD, Roberts LJ, Evanson JA, Becker B, Hakim RM, **Shyr Y**, Himmelfarb J. Plasma F2-isoprostane levels are elevated in chronic hemodialysis patients. *Clin Nephrol* 2002;58(3):190-197.
111. MacRae R, **Shyr Y**, Johnson D, Choy H. Declining hemoglobin during chemoradiotherapy for locally advanced non-small cell lung cancer is significant. *Journal of the European Society for Therapeutic Radiology and Oncology* 2002;64(1):37-40.
112. Miller MF, McDowell T, Small SE, **Shyr Y**, Kemp NR. Hardly used habitats: Dearth and distribution of burrowing in Paleozoic and Mesozoic stream and lake deposits. *Geology* 2002;30(6):527-530.
113. Pietrow PK, Pope JcT, Adams MC, **Shyr Y**, Brock JW, 3rd. Clinical outcome of pediatric stone disease. *Journal of Urology* 2002;167(2 Pt 1):670-673.
114. Pupim LB, Kent P, Caglar K, **Shyr Y**, Hakim RM, Ikizler TA. Improvement in nutritional parameters after initiation of chronic hemodialysis. *AJKD* 2002;40(1):143-151.

115. Washington K, Greenson JK, Montgomery E, **Shyr Y**, Crissinger KD, Polk DB, Barnard J, Lauwers GY. Histopathology of ulcerative colitis in initial rectal biopsy in children. *Am J Surg Pathol* 2002;26(11):1441-1449.
116. Wudel LJ, Jr., Chapman WC, **Shyr Y**, Davidson M, Jeyakumar A, Rogers SO, Jr., Allos T, Stain SC. Disparate outcomes in patients with colorectal cancer: effect of race on long-term survival. *Archives of Surgery* 2002;137(5):550-554; discussion 554-556.
117. Wudel LJ, Jr., Wright JK, Debelak JP, Allos TM, **Shyr Y**, Chapman WC. Prevention of gallstone formation in morbidly obese patients undergoing rapid weight loss: results of a randomized controlled pilot study. *J Surg Res* 2002;102(1):50-56.
118. Gorska AE, Jensen RA, **Shyr Y**, Aakre ME, Bhowmick NA, Moses HL. Transgenic mice expressing a dominant-negative mutant type II transforming growth factor-beta receptor exhibit impaired mammary development and enhanced mammary tumor formation. *American Journal of Pathology* 2003;163(4):1539-1549. PMID: PMC1868288.
119. Kim JC, Kim JS, Saha D, Cao Q, **Shyr Y**, Choy H. Potential radiation-sensitizing effect of semisynthetic epothilone B in human lung cancer cells. *Radiotherapy and Oncology* 2003;68(3):305-313.
120. Massion PP, Taflan PM, Jamshedur Rahman SM, Yildiz P, **Shyr Y**, Edgerton ME, Westfall MD, Roberts JR, Pietenpol JA, Carbone DP, Gonzalez AL. Significance of p63 amplification and overexpression in lung cancer development and prognosis. *Cancer Research* 2003;63(21):7113-7121.
121. Neyra R, Chen KY, Sun M, **Shyr Y**, Hakim RM, Ikizler TA. Increased resting energy expenditure in patients with end-stage renal disease. *Journal of Parenteral and Enteral Nutrition* 2003;27(1):36-42.
122. **Shyr Y**. Statistical strategies for analyzing the microarray data in human lung cancer. *Lung Cancer* 2003;41(2003):90-91.
123. Tu WH, Thomas TZ, Masumori N, Bhowmick NA, Gorska AE, **Shyr Y**, Kasper S, Case T, Roberts RL, Shappell SB, Moses HL, Matusik RJ. The loss of TGF-beta signaling promotes prostate cancer metastasis. *Neoplasia* 2003;5(3):267-277. PMID: PMC1502411.
124. VanderVeen LA, Hashim MF, **Shyr Y**, Marnett LJ. Induction of frameshift and base pair substitution mutations by the major DNA adduct of the endogenous carcinogen malondialdehyde. *Proceedings of the National Academy of Sciences of the United States of America* 2003;100(24):14247-14252. PMID: PMC283577.
125. Wudel LJ, Jr., Delbeke D, Morris D, Rice M, Washington MK, **Shyr Y**, Pinson CW, Chapman WC. The role of [18F]fluorodeoxyglucose positron emission tomography imaging in the evaluation of hepatocellular carcinoma. *American Surgeon* 2003;69(2):117-124; discussion 124-116.
126. Xie L, Law BK, Aakre ME, Edgerton M, **Shyr Y**, Bhowmick NA, Moses HL. Transforming growth factor beta-regulated gene expression in a mouse mammary gland epithelial cell line. *Breast Cancer Res* 2003;5(6):R187-198. PMID: PMC314403.
127. Yamagata N, **Shyr Y**, Yanagisawa K, Edgerton M, Dang TP, Gonzalez A, Nadaf S, Larsen P, Roberts JR, Nesbitt JC, Jensen R, Levy S, Moore JH, Minna JD, Carbone DP. A training-testing approach to the molecular classification of resected non-small cell lung cancer. *Clinical Cancer Research* 2003;9(13):4695-4704.
128. Yanagisawa K, **Shyr Y**, Xu BJ, Massion PP, Larsen PH, White BC, Roberts JR, Edgerton M, Gonzalez A, Nadaf S, Moore JH, Caprioli RM, Carbone DP. Proteomic patterns of tumour subsets in non-small-cell lung cancer. *Lancet* 2003;362(9382):433-439.
129. Yang L, Yamagata N, Yadav R, Brandon S, Courtney RL, Morrow JD, **Shyr Y**, Boothby M, Joyce S, Carbone DP, Breyer RM. Cancer-associated immunodeficiency and dendritic cell abnormalities mediated by the prostaglandin EP2 receptor. *J Clin Invest* 2003;111(5):727-735. PMID: PMC151895.
130. Gonzalez AL, Roberts RL, Massion PP, Olson SJ, **Shyr Y**, Shappell SB. 15-Lipoxygenase-2 expression in benign and neoplastic lung: An immunohistochemical study and correlation with tumor grade and proliferation. *Human Pathology* 2004;35(7):840-849.

131. Ikizler TA, Sezer MT, Flakoll PJ, Hariachar S, Kanagasundaram NS, Gritter N, Knights S, **Shyr Y**, Paganini E, Hakim RM, Himmelfarb J. Urea space and total body water measurements by stable isotopes in patients with acute renal failure. *Kidney International* 2004;65(2):725-732.
132. Jagasia M, Morgan D, Goodman S, Hamilton K, Kinney M, **Shyr Y**, Stein R, Zic J, Greer J. Histology impacts the outcome of peripheral T-cell lymphomas after high dose chemotherapy and stem cell transplant. *Leukemia & Lymphoma* 2004;45(11):2261-2267.
133. Jennings MT, Cmelak A, Johnson MD, Moots PL, Pais R, **Shyr Y**. Differential responsiveness among "high risk" pediatric brain tumors in a pilot study of dose-intensive induction chemotherapy. *Pediatric Blood & Cancer* 2004;43(1):46-54.
134. Kimble KM, Eber RM, Soehren S, **Shyr Y**, Wang HL. Treatment of gingival recession using a collagen membrane with or without the use of demineralized freeze-dried bone allograft for space maintenance. *Journal of Periodontology* 2004;75(2):210-220.
135. Lu B, Gonzalez A, Massion PP, **Shyr Y**, Shaktour B, Carbone DP, Hallahan DE. Nuclear survivin as a biomarker for non-small-cell lung cancer. *British Journal of Cancer* 2004;91(3):537-540. PMID: PMC2409840.
136. Massion PP, Taflan PM, **Shyr Y**, Rahman SM, Yildiz P, Shakhtour B, Edgerton ME, Ninan M, Andersen JJ, Gonzalez AL. Early involvement of the phosphatidylinositol 3-kinase/Akt pathway in lung cancer progression. *American Journal of Respiratory and Critical Care Medicine* 2004;170(10):1088-1094.
137. Osusky KL, Hallahan DE, Fu A, Ye F, **Shyr Y**, Geng L. The receptor tyrosine kinase inhibitor SU11248 impedes endothelial cell migration, tubule formation, and blood vessel formation in vivo, but has little effect on existing tumor vessels. *Angiogenesis* 2004;7(3):225-233.
138. Pupim LB, Caglar K, Hakim RM, **Shyr Y**, Ikizler TA. Uremic malnutrition is a predictor of death independent of inflammatory status. *Kidney Int* 2004;66(5):2054-2060.
139. Pupim LB, Himmelfarb J, McMonagle E, **Shyr Y**, Ikizler TA. Influence of initiation of maintenance hemodialysis on biomarkers of inflammation and oxidative stress. *Kidney Int* 2004;65(6):2371-2379.
140. Simmons EM, Himmelfarb J, Sezer MT, Chertow GM, Mehta RL, Paganini EP, Soroko S, Freedman S, Becker K, Spratt D, **Shyr Y**, Ikizler TA. Plasma cytokine levels predict mortality in patients with acute renal failure. *Kidney Int* 2004;65(4):1357-1365.
141. Tedesco KL, Thor AD, Johnson DH, **Shyr Y**, Blum KA, Goldstein LJ, Gradishar WJ, Nicholson BP, Merkel DE, Murrey D, Edgerton S, Sledge GW, Jr. Docetaxel combined with trastuzumab is an active regimen in HER-2 3+ overexpressing and fluorescent in situ hybridization-positive metastatic breast cancer: a multi-institutional phase II trial. *J Clin Oncol* 2004;22(6):1071-1077.
142. Yang L, DeBusk LM, Fukuda K, Fingleton B, Green-Jarvis B, **Shyr Y**, Matrisian LM, Carbone DP, Lin PC. Expansion of myeloid immune suppressor Gr⁺CD11b⁺ cells in tumor-bearing host directly promotes tumor angiogenesis. *Cancer Cell* 2004;6(4):409-421.
143. Basi S, Pupim LB, Simmons EM, Sezer MT, **Shyr Y**, Freedman S, Chertow GM, Mehta RL, Paganini E, Himmelfarb J, Ikizler TA. Insulin resistance in critically ill patients with acute renal failure. *American Journal of Physiology - Renal Physiology* 2005;289(2):F259-264.
144. Boyd AS, Wu H, **Shyr Y**. Monster cells in malignant melanoma. *American Journal of Dermatopathology* 2005;27(3):208-210.
145. Brantley-Sieders DM, Fang WB, Hicks DJ, Zhuang G, **Shyr Y**, Chen J. Impaired tumor microenvironment in EphA2-deficient mice inhibits tumor angiogenesis and metastatic progression. *FASEB Journal* 2005;19(13):1884-1886.
146. Bui CM, Chen H, **Shyr Y**, Joos KM. Discontinuing nasal steroids might lower intraocular pressure in glaucoma. *J Allergy Clin Immunol* 2005;116(5):1042-1047.
147. Csiki I, Morrow JD, Sandler A, **Shyr Y**, Oates J, Williams MK, Dang T, Carbone DP, Johnson DH. Targeting cyclooxygenase-2 in recurrent non-small cell lung cancer: A phase II trial of celecoxib and docetaxel. *Clinical Cancer Research* 2005;11(18):6634-6640.

148. Frank DB, Abtahi A, Yamaguchi DJ, Manning S, **Shyr Y**, Pozzi A, Baldwin HS, Johnson JE, de Caestecker MP. Bone morphogenetic protein 4 promotes pulmonary vascular remodeling in hypoxic pulmonary hypertension. *Circulation Research* 2005;97(5):496-504.
149. Grau AM, Ata A, Foster L, Ahmed NU, Gorman DR, **Shyr Y**, Stain SC, Pearson AS. Effect of race on long-term survival of breast cancer patients: Transinstitutional analysis from an inner city hospital and university medical center. *American Surgeon* 2005;71(2):164-170.
150. Kim DW, **Shyr Y**, Chen H, Akerley W, Johnson DH, Choy H. Response to combined modality therapy correlates with survival in locally advanced non-small-cell lung cancer. *International Journal of Radiation Oncology Biology Physics* 2005;63(4):1029-1036.
151. Kim DW, **Shyr Y**, Shaktour B, Akerley W, Johnson DH, Choy H. Long term follow up and analysis of long term survivors in patients treated with paclitaxel-based concurrent chemo/radiation therapy for locally advanced non-small cell lung cancer. *Lung Cancer* 2005;50(2):235-245.
152. Kuhn JE, Huston LJ, Soslowsky LJ, **Shyr Y**, Blasier RB. External rotation of the glenohumeral joint: ligament restraints and muscle effects in the neutral and abducted positions. *Journal of Shoulder and Elbow Surgery* 2005;14(1 Suppl S):39S-48S.
153. Maas K, Chen H, **Shyr Y**, Olsen NJ, Aune T. Shared gene expression profiles in individuals with autoimmune disease and unaffected first-degree relatives of individuals with autoimmune disease. *Human Molecular Genetics* 2005;14(10):1305-1314.
154. Park YK, Franklin JL, Settle SH, Levy SE, Chung E, Jeyakumar LH, **Shyr Y**, Washington MK, Whitehead RH, Aronow BJ, Coffey RJ. Gene expression profile analysis of mouse colon embryonic development. *Genesis* 2005;41(1):1-12.
155. Rahman SM, **Shyr Y**, Yildiz PB, Gonzalez AL, Li H, Zhang X, Chaurand P, Yanagisawa K, Slovis BS, Miller RF, Ninan M, Miller YE, Franklin WA, Caprioli RM, Carbone DP, Massion PP. Proteomic patterns of preinvasive bronchial lesions. *American Journal of Respiratory and Critical Care Medicine* 2005;172(12):1556-1562. PMID: PMC2718455.
156. Schwartz SA, Weil RJ, Thompson RC, **Shyr Y**, Moore JH, Toms SA, Johnson MD, Caprioli RM. Proteomic-based prognosis of brain tumor patients using direct-tissue matrix-assisted laser desorption ionization mass spectrometry. *Cancer Research* 2005;65(17):7674-7681.
157. Shinohara ET, Geng L, Tan J, Chen H, **Shyr Y**, Edwards E, Halbrook J, Kesicki EA, Kashishian A, Hallahan DE. DNA-dependent protein kinase is a molecular target for the development of noncytotoxic radiation sensitizing drugs. *Cancer Research* 2005;65(12):4987-4992.
158. Shinohara ET, Gonzalez A, Massion PP, Chen H, Li M, Freyer AS, Olson SJ, Andersen JJ, **Shyr Y**, Carbone DP, Johnson DH, Hallahan DE, Lu B. Nuclear survivin predicts recurrence and poor survival in patients with resected non-small cell lung carcinoma. *Cancer* 2005;103(8):1685-1692.
159. Tedesco KL, Berlin J, Blanke CD, Teng M, Choy H, Roberts J, Beauchamp RD, Leach S, Wyman K, Tarpley J, **Shyr Y**, Caillouette C, Chakravarthy B. Phase I trial of Orzel (UFT plus leucovorin), cisplatin, and radiotherapy in the treatment of potentially resectable esophageal cancer. *International Journal of Radiation Oncology Biology Physics* 2005;61(5):1364-1370.
160. Tedesco KL, Berlin J, Rothenberg M, Choy H, Wyman K, Scott Pearson A, Daniel Beauchamp R, Merchant N, Lockhart AC, **Shyr Y**, Caillouette C, Chakravarthy B. A phase I study of concurrent 9-nitro-20(s)-camptothecin (9NC/Orathecin) and radiation therapy in the treatment of locally advanced adenocarcinoma of the pancreas. *Radiotherapy and Oncology* 2005;76(1):54-58.
161. Thompson MA, Stumph J, Henrickson SE, Rosenwald A, Wang Q, Olson S, Brandt SJ, Roberts J, Zhang X, **Shyr Y**, Kinney MC. Differential gene expression in anaplastic lymphoma kinase-positive and anaplastic lymphoma kinase-negative anaplastic large cell lymphomas. *Human Pathology* 2005;36(5):494-504.
162. Xie L, Xu BJ, Gorska AE, **Shyr Y**, Schwartz SA, Cheng N, Levy S, Bierie B, Caprioli RM, Moses HL. Genomic and proteomic analysis of mammary tumors arising in transgenic mice. *J Proteome Res* 2005;4(6):2088-2098.

163. Xu BJ, **Shyr Y**, Liang X, Ma LJ, Donnert EM, Roberts JD, Zhang X, Kon V, Brown NJ, Caprioli RM, Fogo AB. Proteomic patterns and prediction of glomerulosclerosis and its mechanisms. *Journal of the American Society of Nephrology* 2005;16(10):2967-2975.
164. Yi Y, Mirosevich J, **Shyr Y**, Matusik R, George AL, Jr. Coupled analysis of gene expression and chromosomal location. *Genomics* 2005;85(3):401-412.
165. Baker SG, Kramer BS, McIntosh M, Patterson BH, **Shyr Y**, Skates S. Evaluating markers for the early detection of cancer: overview of study designs and methods. *Clinical Trials* 2006;3(1):43-56.
166. Cuneo KC, Geng L, Tan J, Brousal J, Shinohara ET, Osusky K, Fu A, **Shyr Y**, Wu H, Hallahan DE. SRC family kinase inhibitor SU6656 enhances antiangiogenic effect of irradiation. *Int J Radiat Oncol Biol Phys* 2006;64(4):1197-1203.
167. Dennehy MK, Richards KA, Wernke GR, **Shyr Y**, Liebler DC. Cytosolic and nuclear protein targets of thiol-reactive electrophiles. *Chemical Research in Toxicology* 2006;19(1):20-29.
168. Geng L, Shinohara ET, Kim D, Tan J, Osusky K, **Shyr Y**, Hallahan DE. STI571 (Gleevec) improves tumor growth delay and survival in irradiated mouse models of glioblastoma. *Int J Radiat Oncol Biol Phys* 2006;64(1):263-271.
169. Hong D, **Shyr Y**. Wavelets in biostatistics. *Journal of Concrete and Applicable Mathematics* 2006;4:505-521.
170. Shames DS, Girard L, Gao B, Sato M, Lewis CM, Shivapurkar N, Jiang A, Perou CM, Kim YH, Pollack JR, Fong KM, Lam CL, Wong M, **Shyr Y**, Nanda R, Olopade OI, Gerald W, Euhus DM, Shay JW, Gazdar AF, Minna JD. A genome-wide screen for promoter methylation in lung cancer identifies novel methylation markers for multiple malignancies. *PLoS Med* 2006;3(12):e486. PMID: PMC1716188.
171. Slebos RJ, Li M, Evjen AN, Coffa J, **Shyr Y**, Yarbrough WG. Mutagenic effect of cadmium on tetranucleotide repeats in human cells. *Mutation Research* 2006;602(1-2):92-99.
172. Slebos RJ, Yi Y, Ely K, Carter J, Evjen A, Zhang X, **Shyr Y**, Murphy BM, Cmelak AJ, Burkey BB, Netterville JL, Levy S, Yarbrough WG, Chung CH. Gene expression differences associated with human papillomavirus status in head and neck squamous cell carcinoma. *Clin Cancer Res* 2006;12(3 Pt 1):701-709.
173. Wetzel JD, Barton ES, Chappell JD, Baer GS, Mochow-Grundy M, Rodgers SE, **Shyr Y**, Powers AC, Thomas JW, Dermody TS. Reovirus delays diabetes onset but does not prevent insulinitis in nonobese diabetic mice. *Journal of Virology* 2006;80(6):3078-3082. PMID: PMC1395416.
174. Wright RW, Boyce RH, Michener T, **Shyr Y**, McCarty EC, Spindler KP. Radiographs are not useful in detecting arthroscopically confirmed mild chondral damage. *Clinical Orthopaedics and Related Research* 2006;442:245-251.
175. Agulnik M, da Cunha Santos G, Hedley D, Nicklee T, Dos Reis PP, Ho J, Pond GR, Chen H, Chen S, **Shyr Y**, Winkquist E, Soulieres D, Chen EX, Squire JA, Marrano P, Kamel-Reid S, Dancey J, Siu LL, Tsao MS. Predictive and pharmacodynamic biomarker studies in tumor and skin tissue samples of patients with recurrent or metastatic squamous cell carcinoma of the head and neck treated with erlotinib. *J Clin Oncol* 2007;25(16):2184-2190.
176. Albert JM, Gonzalez A, Massion PP, Chen H, Olson SJ, **Shyr Y**, Diaz R, Lambright ES, Sandler A, Carbone DP, Putnam JB, Jr., Johnson DH, Lu B. Cytoplasmic clusterin expression is associated with longer survival in patients with resected non-small cell lung cancer. *Cancer Epidemiol Biomarkers Prev* 2007;16(9):1845-1851.
177. Chen S, Hong D, **Shyr Y**. Wavelet-based procedures for proteomic mass spectrometry data processing. *Computational Statistics & Data Analysis* 2007;52(1):211-220.
178. Cheng N, Chytil A, **Shyr Y**, Joly A, Moses HL. Enhanced hepatocyte growth factor signaling by type II transforming growth factor-beta receptor knockout fibroblasts promotes mammary tumorigenesis. *Cancer Research* 2007;67(10):4869-4877.
179. Cmelak AJ, Murphy BA, Burkey B, Douglas S, **Shyr Y**, Netterville J. Taxane-based chemoradiation for organ preservation with locally advanced head and neck cancer: results of a phase II multi-institutional trial. *Head Neck* 2007;29(4):315-324.

180. Dai Q, Shrubsole MJ, Ness RM, Schlundt D, Cai Q, Smalley WE, Li M, **Shyr Y**, Zheng W. The relation of magnesium and calcium intakes and a genetic polymorphism in the magnesium transporter to colorectal neoplasia risk. *Am J Clin Nutr* 2007;86(3):743-751. PMID: PMC2082111.
181. Hoshino A, Yee CJ, Campbell M, Woltjer RL, Townsend RL, van der Meer R, **Shyr Y**, Holt JT, Moses HL, Jensen RA. Effects of BRCA1 transgene expression on murine mammary gland development and mutagen-induced mammary neoplasia. *International Journal of Biological Sciences* 2007;3(5):281-291. PMID: PMC1865089.
182. Jiang A, Pan W, Milbauer LC, **Shyr Y**, Hebbel RP. A practical question based on cross-platform microarray data normalization: are BOEC more like large vessel or microvascular endothelial cells or neither of them? *Journal of Bioinformatics and Computational Biology* 2007;5(4):875-893.
183. Kantrow SM, Boyd AS, Ellis DL, Nanney LB, Richmond A, **Shyr Y**, Robbins JB. Expression of activated Akt in benign nevi, Spitz nevi and melanomas. *Journal of Cutaneous Pathology* 2007;34(8):593-596. PMID: PMC2665272.
184. Kim DW, Blanke CD, Wu H, **Shyr Y**, Berlin J, Beauchamp RD, Chakravarthy B. Phase II study of preoperative paclitaxel/cisplatin with radiotherapy in locally advanced esophageal cancer. *International Journal of Radiation Oncology Biology Physics* 2007;67(2):397-404.
185. Li JQ, Xu BJ, Shakhtour B, Deane N, Merchant N, Heslin MJ, Washington K, Coffey RJ, Beauchamp RD, **Shyr Y**, Billheimer D. Variability of in situ proteomic profiling and implications for study design in colorectal tumors. *International Journal of Oncology* 2007;31(1):103-111.
186. Lovvorn HN, 3rd, Boyle S, Shi G, **Shyr Y**, Wills ML, Perantoni AO, de Caestecker M. Wilms' tumorigenesis is altered by misexpression of the transcriptional co-activator, CITED1. *Journal of Pediatric Surgery* 2007;42(3):474-481. PMID: PMC3028602.
187. Murff HJ, Shrubsole MJ, Smalley WE, Wu H, **Shyr Y**, Ness RM, Zheng W. The interaction of age and hormone replacement therapy on colon adenoma risk. *Cancer Detection and Prevention* 2007;31(2):161-165. PMID: PMC1949417.
188. Roberts LJ, 2nd, Oates JA, Linton MF, Fazio S, Meador BP, Gross MD, **Shyr Y**, Morrow JD. The relationship between dose of vitamin E and suppression of oxidative stress in humans. *Free Radical Biology & Medicine* 2007;43(10):1388-1393. PMID: PMC2072864.
189. Shin A, Shrubsole MJ, Ness RM, Wu H, Sinha R, Smalley WE, **Shyr Y**, Zheng W. Meat and meat-mutagen intake, doneness preference and the risk of colorectal polyps: The Tennessee Colorectal Polyp Study. *International Journal of Cancer* 2007;121(1):136-142.
190. Shinohara ET, Gonzalez A, Massion PP, Olson SJ, Albert JM, **Shyr Y**, Carbone DP, Johnson DH, Hallahan DE, Lu B. PDGFR-beta expression in small cell lung cancer patients. *International Journal of Radiation Oncology Biology Physics* 2007;67(2):431-437.
191. Sinsakul M, Sika M, Rodby R, Middleton J, **Shyr Y**, Chen H, Han E, Lehrich R, Clyne S, Schulman G, Harris R, Lewis J. A randomized trial of a 6-week course of celecoxib on proteinuria in diabetic kidney disease. *American Journal of Kidney Diseases* 2007;50(6):946-951.
192. Tang YW, Li H, Wu H, **Shyr Y**, Edwards KM. Host single-nucleotide polymorphisms and altered responses to inactivated influenza vaccine. *Journal of Infectious Diseases* 2007;196(7):1021-1025.
193. Wall RJ, **Shyr Y**, Smalley W. Nonsteroidal anti-inflammatory drugs and lung cancer risk: A population-based case control study. *J Thorac Oncol* 2007;2(2):109-114.
194. Willey CD, Murphy BA, Nettekville JL, Burkey BB, **Shyr Y**, Shakhtour B, Kish B, Raben D, Chen C, Song JI, Kane MA, Cmelak AJ. A Phase II multi-institutional trial of chemoradiation using weekly docetaxel and erythropoietin for high-risk postoperative head and neck cancer patients. *International Journal of Radiation Oncology Biology Physics* 2007;67(5):1323-1331.
195. Woodhams DC, Vredenburg VT, Simon MA, Billheimer D, Shakhtour B, **Shyr Y**, Briggs CJ, Rollins-Smith LA, Harris RN. Symbiotic bacteria contribute to innate immune defenses of the threatened mountain yellow-legged frog, *Rana muscosa*. *Biological Conservation* 2007;138(3-4):390-398.

196. Wu H, Muscato NE, Gonzalez A, **Shyr Y**. An EGFR and AKT Signaling Pathway was Identified with Mediation Model in Osteosarcomas Clinical Study. *Biomark Insights* 2007;2:469-476. PMID: PMC2717822.
197. Ye F, **Shyr Y**. Balanced two-stage designs for phase II clinical trials. *Clinical Trials* 2007;4(5):514-524.
198. Yildiz PB, **Shyr Y**, Rahman JS, Wardwell NR, Zimmerman LJ, Shakhtour B, Gray WH, Chen S, Li M, Roder H, Liebler DC, Bigbee WL, Siegfried JM, Weissfeld JL, Gonzalez AL, Ninan M, Johnson DH, Carbone DP, Caprioli RM, Massion PP. Diagnostic accuracy of MALDI mass spectrometric analysis of unfractionated serum in lung cancer. *J Thorac Oncol* 2007;2(10):893-901.
199. Boyd AS, Shakhtour B, **Shyr Y**. Minichromosome maintenance protein expression in benign nevi, dysplastic nevi, melanoma, and cutaneous melanoma metastases. *Journal of the American Academy of Dermatology* 2008;58(5):750-754.
200. Cheng N, Chytil A, **Shyr Y**, Joly A, Moses HL. Transforming growth factor-beta signaling-deficient fibroblasts enhance hepatocyte growth factor signaling in mammary carcinoma cells to promote scattering and invasion. *Molecular Cancer Research* 2008;6(10):1521-1533. PMID: PMC2740918.
201. Frangoul H, Al-Jadiry MF, **Shyr Y**, Ye F, Shakhtour B, Al-Hadad SA. Shortage of chemotherapeutic agents in Iraq and outcome of childhood acute lymphocytic leukemia, 1990-2002. *N Engl J Med* 2008;359(4):435-437.
202. Gilbert J, Cmelak A, **Shyr Y**, Nettekville J, Burkey BB, Sinard RJ, Yarbrough WG, Chung CH, Aulino JM, Murphy BA. Phase II trial of irinotecan plus cisplatin in patients with recurrent or metastatic squamous carcinoma of the head and neck. *Cancer* 2008;113(1):186-192.
203. Guix M, Granja Nde M, Meszoely I, Adkins TB, Wieman BM, Frierson KE, Sanchez V, Sanders ME, Grau AM, Mayer IA, Pestano G, **Shyr Y**, Muthuswamy S, Calvo B, Krontiras H, Krop IE, Kelley MC, Arteaga CL. Short preoperative treatment with erlotinib inhibits tumor cell proliferation in hormone receptor-positive breast cancers. *J Clin Oncol* 2008;26(6):897-906.
204. Harris EI, Lewin DN, Wang HL, Lauwers GY, Srivastava A, **Shyr Y**, Shakhtour B, Revetta F, Washington MK. Lymphovascular invasion in colorectal cancer: an interobserver variability study. *Am J Surg Pathol* 2008;32(12):1816-1821. PMID: PMC2605104.
205. Huang T, Tu K, **Shyr Y**, Wei CC, Xie L, Li YX. The prediction of interferon treatment effects based on time series microarray gene expression profiles. *J Transl Med* 2008;6:44. PMID: PMC2546378.
206. Lin KC, Chen YJ, **Shyr Y**. A nonparametric smoothing method for assessing GEE models with longitudinal binary data. *Statistics in Medicine* 2008;27(22):4428-4439.
207. Massion PP, Zou Y, Chen H, Jiang A, Coulson P, Amos CI, Wu X, Wistuba I, Wei Q, **Shyr Y**, Spitz MR. Smoking-related genomic signatures in non-small cell lung cancer. *American Journal of Respiratory and Critical Care Medicine* 2008;178(11):1164-1172. PMID: PMC2720147.
208. Ni TT, Lemon WJ, **Shyr Y**, Zhong TP. Use of normalization methods for analysis of microarrays containing a high degree of gene effects. *BMC Bioinformatics* 2008;9:505. PMID: PMC2612699.
209. Shin A, Shrubsole MJ, Rice JM, Cai Q, Doll MA, Long J, Smalley WE, **Shyr Y**, Sinha R, Ness RM, Hein DW, Zheng W. Meat intake, heterocyclic amine exposure, and metabolizing enzyme polymorphisms in relation to colorectal polyp risk. *Cancer Epidemiol Biomarkers Prev* 2008;17(2):320-329. PMID: PMC2572782.
210. Shinall MC, Jr., Koehler E, **Shyr Y**, Lovvorn HN, 3rd. Comparing cost and complications of primary and staged surgical repair of neonatally diagnosed Hirschsprung's disease. *Journal of Pediatric Surgery* 2008;43(12):2220-2225.
211. Shrubsole MJ, Wu H, Ness RM, **Shyr Y**, Smalley WE, Zheng W. Alcohol drinking, cigarette smoking, and risk of colorectal adenomatous and hyperplastic polyps. *Am J Epidemiol* 2008;167(9):1050-1058.
212. Slebos RJ, Li M, Vadivelu S, Burkey BB, Nettekville JL, Sinard R, Gilbert J, Murphy B, Chung CH, **Shyr Y**, Yarbrough WG. Microsatellite mutations in buccal cells are associated with aging and head and neck carcinoma. *British Journal of Cancer* 2008;98(3):619-626. PMID: PMC2243146.

213. Xu BJ, Gonzalez AL, Kikuchi T, Yanagisawa K, Massion PP, Wu H, Mason SE, Olson SJ, **Shyr Y**, Carbone DP, Caprioli RM. MALDI-MS derived prognostic protein markers for resected non-small cell lung cancer. *Proteomics – Clinical Applications* 2008;2(10-11):1508-1517.
214. Bierie B, Chung CH, Parker JS, Stover DG, Cheng N, Chytil A, Aakre M, **Shyr Y**, Moses HL. Abrogation of TGF-beta signaling enhances chemokine production and correlates with prognosis in human breast cancer. *J Clin Invest* 2009;119(6):1571-1582. PMID: PMC2689133.
215. Buzzell JE, Lutton DM, **Shyr Y**, Neviasser RJ, Lee DH. Reliability and accuracy of templating the proximal humeral component for shoulder arthroplasty. *J Shoulder Elbow Surg* 2009;18(5):728-733.
216. Chen S, Li M, Hong D, Billheimer D, Li H, Xu BJ, **Shyr Y**. A novel comprehensive wave-form MS data processing method. *Bioinformatics* 2009;25(6):808-814. PMID: PMC2732299.
217. Davies SS, Traustadottir T, Stock AA, Ye F, **Shyr Y**, Harman SM, Roberts LJ. Ischemia/reperfusion unveils impaired capacity of older adults to restrain oxidative insult. *Free Radical Biology & Medicine* 2009;47(7):1014-1018. PMID: PMC2748908.
218. Kan JH, Estrada C, Hasan U, Bracikowski A, **Shyr Y**, Shakhtour B, Hernanz-Schulman M. Management of occult fractures in the skeletally immature patient: Cost analysis of implementing a limited trauma magnetic resonance imaging protocol. *Pediatric Emergency Care* 2009; 25(4): 336-30.
219. Li S, Li H, Li M, **Shyr Y**, Xie L, Li Y. Improved prediction of lysine acetylation by support vector machines. *Protein and Peptide Letters* 2009;16(8):977-983.
220. Lovejoy CA, Xu X, Bansbach CE, Glick GG, Zhao R, Ye F, Sirbu BM, Titus LC, **Shyr Y**, Cortez D. Functional genomic screens identify CINP as a genome maintenance protein. *Proceedings of the National Academy of Sciences of the United States of America* 2009;106(46):19304-19309. PMID: PMC2780779.
221. Moretti L, Yu DS, Chen H, Carbone DP, Johnson DH, Keedy VL, Putnam JB, Jr., Sandler AB, **Shyr Y**, Lu B. Prognostic factors for resected non-small cell lung cancer with pN2 status: Implications for use of postoperative radiotherapy. *Oncologist* 2009;14(11):1106-1115. PMID: PMC3045762.
222. Mutter R, Lu B, Carbone DP, Csiki I, Moretti L, Johnson DH, Morrow JD, Sandler AB, **Shyr Y**, Ye F, Choy H. A phase II study of celecoxib in combination with paclitaxel, carboplatin, and radiotherapy for patients with inoperable stage IIIA/B non-small cell lung cancer. *Clin Cancer Res* 2009;15(6):2158-2165.
223. Salmon S, Chen H, Chen S, Herbst R, Tsao A, Tran H, Sandler A, Billheimer D, **Shyr Y**, Lee JW, Massion P, Brahmer J, Schiller J, Carbone D, Dang TP. Classification by mass spectrometry can accurately and reliably predict outcome in patients with non-small cell lung cancer treated with erlotinib-containing regimen. *J Thorac Oncol* 2009;4(6):689-696. PMID: PMC3563261.
224. Tennessen JA, Woodhams DC, Chaurand P, Reinert LK, Billheimer D, **Shyr Y**, Caprioli RM, Blouin MS, Rollins-Smith LA. Variations in the expressed antimicrobial peptide repertoire of northern leopard frog (*Rana pipiens*) populations suggest intraspecies differences in resistance to pathogens. *Dev Comp Immunol* 2009;33(12):1247-1257. PMID: PMC2927990.
225. Wu H, Dai Q, Shrubsole MJ, Ness RM, Schlundt D, Smalley WE, Chen H, Li M, **Shyr Y**, Zheng W. Fruit and vegetable intakes are associated with lower risk of colorectal adenomas. *Journal of Nutrition* 2009;139(2):340-344. PMID: PMC2646202.
226. Wu J, Qiu Q, Xie L, Fullerton J, Yu J, **Shyr Y**, George AL, Jr., Yi Y. Web-based interrogation of gene expression signatures using EXALT. *BMC Bioinformatics* 2009;10:420. PMID: PMC2799423.
227. Wujcik D, **Shyr Y**, Li M, Clayton MF, Ellington L, Menon U, Mooney K. Delay in diagnostic testing after abnormal mammography in low-income women. *Oncology Nursing Forum* 2009;36(6):709-715.
228. Xu BJ, Li J, Beauchamp RD, **Shyr Y**, Li M, Washington MK, Yeatman TJ, Whitehead RH, Coffey RJ, Caprioli RM. Identification of early intestinal neoplasia protein biomarkers using laser capture microdissection and MALDI MS. *Mol Cell Proteomics* 2009;8(5):936-945. PMID: PMC2689774.
229. Zhao BB, **Shyr Y**. Discrimination or differing model structures? Alternatives and extensions to Blinder-Oaxaca decomposition. *Journal of Economic and Social Measurement* 2009;34(2,3):159-174.

230. Barton CE, Johnson KN, Mays DM, Boehnke K, **Shyr Y**, Boukamp P, Pietenpol JA. Novel p63 target genes involved in paracrine signaling and keratinocyte differentiation. *Cell Death Dis* 2010;1(9):e74. PMID: PMC3000738.
231. Bauer JA, Ye F, Marshall CB, Lehmann BD, Pendleton CS, Shyr Y, Arteaga CL, Pietenpol JA. RNA interference (RNAi) screening approach identifies agents that enhance paclitaxel activity in breast cancer cells. *Breast Cancer Research* 2010; 12(3): R41.
232. Chong PY, Koehler EA, **Shyr Y**, Watson JT, Weikert DR, Rowland JH, Lee DH. Driving with an arm immobilized in a splint: A randomized higher-order crossover trial. *Journal of Bone and Joint Surgery (American Volume)* 2010;92(13):2263-2269.
233. Chung CH, Aulino J, Muldowney NJ, Hatakeyama H, Baumann J, Burkey B, Nettekville J, Sinard R, Yarbrough WG, Cmelak AJ, Slebos RJ, **Shyr Y**, Parker J, Gilbert J, Murphy BA. Nuclear factor-kappa B pathway and response in a phase II trial of bortezomib and docetaxel in patients with recurrent and/or metastatic head and neck squamous cell carcinoma. *Annals of Oncology* 2010;21(4):864-870. PMID: PMC2844946.
234. Diaz R, Jaboin JJ, Morales-Paliza M, Koehler E, Phillips JG, Stinson S, Gilbert J, Chung CH, Murphy BA, Yarbrough WG, Murphy PB, **Shyr Y**, Cmelak AJ. Hypothyroidism as a consequence of intensity-modulated radiotherapy with concurrent taxane-based chemotherapy for locally advanced head-and-neck cancer. *Int J Radiat Oncol Biol Phys* 2010;77(2):468-476.
235. Grogan EL, Deppen S, Pecot CV, Putnam JB, Jr., Nesbitt JC, **Shyr Y**, Rajanbabu R, Ory B, Lambright ES, Massion PP. Diagnostic characteristics of a serum biomarker in patients with positron emission tomography scans. *Ann Thoracic Surg* 2010;89(6):1724-1728; discussion 1728-1729. PMID: PMC3026702.
236. Hassanein M, Weidow B, Koehler E, Bakane N, Garbett S, **Shyr Y**, Quaranta V. Development of high-throughput quantitative assays for glucose uptake in cancer cell lines. *Mol Imaging Biol* 2011;13(5):840-52. doi:10.1007/s11307-010-0399-5. PMID: 20809209; PMID: PMC3627351.
237. Hatakeyama H, Cheng H, Wirth P, Counsell A, Marcrom SR, Wood CB, Pohlmann PR, Gilbert J, Murphy B, Yarbrough WG, Wheeler DL, Harari PM, Guo Y, **Shyr Y**, Slebos RJ, Chung CH. Regulation of heparin-binding EGF-like growth factor by miR-212 and acquired cetuximab-resistance in head and neck squamous cell carcinoma. *PLoS ONE* 2010;5(9):e12702. PMID: PMC2938338.
238. Kobayashi H, Huang J, Ye F, **Shyr Y**, Blackwell TS, Lin PC. Interleukin-32beta propagates vascular inflammation and exacerbates sepsis in a mouse model. *PLoS ONE* 2010;5(3):e9458. PMID: PMC2832764.
239. Li M, Gray W, Zhang H, Chung CH, Billheimer D, Yarbrough WG, Liebler DC, **Shyr Y**, Slebos RJ. Comparative shotgun proteomics using spectral count data and quasi-likelihood modeling. *J Proteome Res* 2010;9(8):4295-4305. PMID: PMC2920032.
240. Miller TW, Balko JM, Ghazoui Z, Dunbier A, Anderson H, Dowsett M, Gonzalez-Angulo AM, Mills GB, Miller WR, Wu H, **Shyr Y**, Arteaga CL. A gene expression signature from human breast cancer cells with acquired hormone independence identifies MYC as a mediator of antiestrogen resistance. *Clin Cancer Res* 2011;17(7):2024-2034. PMID: PMC3221728.
241. Miller TW, Hennessy BT, Gonzalez-Angulo AM, Fox EM, Mills GB, Chen H, Higham C, Garcia-Echeverria C, **Shyr Y**, Arteaga CL. Hyperactivation of phosphatidylinositol-3 kinase promotes escape from hormone dependence in estrogen receptor-positive human breast cancer. *J Clin Invest* 2010;120(7):2406-2413. PMID: PMC2898598.
242. Ocak S, Yamashita H, Udyavar AR, Miller AN, Gonzalez AL, Zou Y, Jiang A, Yi Y, **Shyr Y**, Estrada L, Quaranta V, Massion PP. DNA copy number aberrations in small-cell lung cancer reveal activation of the focal adhesion pathway. *Oncogene* 2010;29(48):6331-6342.
243. Ogden SR, Noto JM, Allen SS, Patel DA, Romero-Gallo J, Washington MK, Fingleton B, Israel DA, Lewis ND, Wilson KT, Chaturvedi R, Zhao Z, **Shyr Y**, Peek RM, Jr. Matrix metalloproteinase-7 and premalignant host responses in *Helicobacter pylori*-infected mice. *Cancer Research* 2010;70(1):30-35. PMID: PMC2804939.

244. Perez CA, Chen H, **Shyr Y**, Courtney R, Zheng W, Cai Q, Hwang M, Jaboin J, Schleicher S, Moretti L, Wills M, Smith JA, Lu B. The EGFR polymorphism rs884419 is associated with freedom from recurrence in patients with resected prostate cancer. *Journal of Urology* 2010;183(5):2062-2069.
245. Smith JJ, Deane NG, Wu F, Merchant NB, Zhang B, Jiang A, Lu P, Johnson JC, Schmidt C, Bailey CE, Eschrich S, Kis C, Levy S, Washington MK, Heslin MJ, Coffey RJ, Yeatman TJ, **Shyr Y**, Beauchamp RD. Experimentally derived metastasis gene expression profile predicts recurrence and death in patients with colon cancer. *Gastroenterology* 2010;138(3):958-968.
246. Woodhams DC, Kenyon N, Bell SC, Alford RA, Chen S, Billheimer D, **Shyr Y**, Rollins-Smith LA. Adaptations of skin peptide defences and possible response to the amphibian chytrid fungus in populations of Australian green-eyed treefrogs, *Litoria genimaculata*. *Diversity and Distributions* 2010;16(4):703-712.
247. Yu DS, Zhao R, Hsu EL, Cayer J, Ye F, Guo Y, **Shyr Y**, Cortez D. Cyclin-dependent kinase 9-cyclin K functions in the replication stress response. *Embo Reports* 2010;11(11):876-882. PMID: PMC2966956.
248. Zheng W, Wen W, Gao YT, **Shyr Y**, Zheng Y, Long J, Li G, Li C, Gu K, Cai Q, Shu XO, Lu W. Genetic and clinical predictors for breast cancer risk assessment and stratification among Chinese women. *Journal of the National Cancer Institute* 2010;102(13):972-981. PMID: PMC2897876.
249. Biswas S, Nyman JS, Alvarez J, Chakravarthi A, Ayers A, Sterling J, Edwards J, Rana T, Johnson R, Perrien DS, Lonning S, **Shyr Y**, Matrisian LM, Mundy GR. Anti-transforming growth factor β antibody treatment rescues bone loss and prevents breast cancer metastasis to bone. *PLoS One* 2011;6(11). PMID: PMC3214031.
250. Borkon MJ, Morrow SE, Koehler EA, **Shyr Y**, Hilmes MA, Miller RS, Neblett WW, Lovvorn HN. Operative intervention for complete pancreatic transection in children sustaining blunt abdominal trauma: revisiting an organ salvage technique. *American Surgeon* 2011;77(5):612-620.
251. Boutté AM, McDonald WH, **Shyr Y**, Yang L, Lin PC. Characterization of the MDSC proteome associated with metastatic murine mammary tumors using label-free mass spectrometry and shotgun proteomics. *PLoS One* 2011;6(8):e22446 PMID: PMC3154190.
252. Brantley-Sieders DM, Dunaway CM, Rao M, Short S, Hwang Y, Gao Y, Li D, Jiang A, **Shyr Y**, Wu JY, Chen J. Angiocrine factors modulate tumor proliferation and motility through EphA2 repression of Slit2 tumor suppressor function in endothelium. *Cancer Research* 2011;71(3):976-987. PMID: PMC3032824.
253. Brantley-Sieders DM, Jiang A, Sarma K, Badu-Nkansah A, Walter DL, **Shyr Y**, Chen J. Eph/ephrin profiling in human breast cancer reveals significant associations between expression level and clinical outcome. *PLoS One* 2011;6(9): e24426. PMID: PMC3174170.
254. Dexheimer JW, Talbot TR III, Ye F, **Shyr Y**, Jones I, Gregg WM, Aronsky D. A computerized pneumococcal vaccination reminder system in the adult emergency department. *Vaccine* 2011;29:7035-7041. PMID: PMC3168965.
255. Fohn LE, Rodriguez A, Kelley MC, Ye F, **Shyr Y**, Stricklin G, Robbins JB. D2-40 lymphatic marker for detecting lymphatic invasion in thin to intermediate thickness melanomas: association with sentinel lymph node status and prognostic value—a retrospective case study. *Journal of the American Academy of Dermatology* 2011;64(2):336-345.
256. Fox E, Miller T, Balko J, Kuba MG, Sanchez V, Smith A, Liu S, Gonzalez-Angulo A, Mills G, Ye F, **Shyr Y**, Manning HC, Buck E, Arteaga C. A kinome-wide screen identifies the Insulin/IGF1 receptor pathway as a mechanism of escape from hormone dependence in breast cancer. *Cancer Research* 2011;71(21):6773-6784. PMID: PMC3206206.
257. Fu Z, Shrubsole MJ, Smalley WE, Wu H, Chen Z, **Shyr Y**, Ness RM, Zheng W. Association of meat intake and meat-derived mutagen exposure with the risk of colorectal polyps by histologic type. *Cancer Prevention Research* 2011;4(10):1686-1697. PMID: PMC3188364.
258. Funatogawa T, Funatogawa I, **Shyr Y**. Analysis of covariance with pre-treatment measurements in randomized trials under the cases that covariances and post-treatment variances differ between groups. *Biometrical Journal* 2011; 53(3):512-524.

259. Ge L, Smail M, Meng W, **Shyr Y**, Ye F, Fan KH, Li X, Zhou HM, Bhowmick NA. Yes-associated protein expression in head and neck squamous cell carcinoma nodal metastasis. *PLoS One* 2011;6(11): e27529. PMID: PMC3212574.
260. Horn L, Zhao Z, Sandler A, Johnson D, **Shyr Y**, Wolff S, Devore RF, Laskin J. A phase ii study of carboplatin and irinotecan in extensive stage small-cell lung cancer. *Clinical Lung Cancer* 2011;12(3):161-165.
261. Lehmann BD, Bauer JA, Chen X, Sanders ME, Chakravarthy AB, **Shyr Y**, Pietenpol JA. Identification of human triple-negative breast cancer subtypes and preclinical models for selection of targeted therapies. *J Clin Invest* 2011;121(7):2750-2767. PMID: PMC3127435.
262. Li M, Chen S, Zhang J, Chen H, **Shyr Y**. Wave-spec: a preprocessing package for mass spectrometry data. *Bioinformatics* 2011;27(5):739-740. PMID: PMC3105479.
263. Miller TW, Balko JM, Ghazoui Z, Dunbier A, Anderson H, Dowsett M, Gonzalez-Angulo AM, Mills GB, Miller WR, Wu H, **Shyr Y**, Arteaga CL. A gene expression signature from human breast cancer cells with acquired hormone independence identifies myc as a mediator of antiestrogen resistance. *Clin Cancer Res* 2011;17(7):2024-2034. PMID: PMC3221728.
264. Miller TW, Fox E, Balko JM, Ghazoui A, Dunbier A, Anderson H, Dowsett M, Jiang A, Smith RA, Sánchez V, Maira SM, Manning HC, González-Angulo AM, Mills GB, Higham C, Ye F, Miller WR, **Shyr Y**, Arteaga C. ER α -dependent E2F transcription can mediate resistance to estrogen deprivation in human breast cancer. *Cancer Discov* 2011;1(4):338-351. PMID: PMC3204388.
265. Murff HJ, Shrubsole MJ, Chen Z, Smalley WE, **Shyr Y**, Ness RM, Zheng W. Non-steroidal anti-inflammatory drug use and risk of adenomatous and hyperplastic polyps. *Cancer Prevention Research* 2011;4(11):1799-1807. PMID: PMC3203989.
266. Novitskiy SV, Pickup MW, Gorska AE, Owens P, Chytil A, Aakre M, Wu H, **Shyr Y**, Moses HL. TGF- β receptor II loss promotes mammary carcinoma progression by Th17 dependent mechanisms. *Cancer Discov* 2011;1(5):430-441. PMID: PMC3297196.
267. Rahman SM, Gonzalez AL, Li M, Seeley EH, Zimmerman LJ, Zhang XJ, Manier ML, Olson SJ, Shah RN, Miller AN, Putnam JB, Miller YE, Franklin WA, Blot WJ, Carbone DP, **Shyr Y**, Caprioli RM, Massion PP. Lung cancer diagnosis from proteomic analysis of preinvasive lesions. *Cancer Research* 2011;71(8):3009-3017. PMID: PMC3110721.
268. Rosenbluth JM, Mays DJ, Jiang A, **Shyr Y**, Pietenpol JA. Differential regulation of the p73 cistrome by mammalian target of rapamycin reveals transcriptional programs of mesenchymal differentiation and tumorigenesis. *Proceedings of the National Academy of Sciences of the United States of America* 2011;108(5):2076-2081. PMID: PMC3033306.
269. **Shyr Y**. Rigorous quantitative sciences integration: The foundation of the drug approval in the personal genome era. *International Review of Thrombosis* 2011;6(1):36-43.
270. **Shyr Y**, Su P. Statistics in medical research. *Science Development* 2011;463(7):6-11.
271. Su PF, Chi YC, Li CI, **Shyr Y**, Liao YD. Analyzing survival curves at a fixed point in time for paired and clustered right-censored data. *Computational Statistics & Data Analysis* 2011;55(4):1617-1628.
272. Tamboli RA, Hajri T, Jiang A, Marks-Shulman PA, Williams DB, Clements RH, Melvin W, Bown BP, **Shyr Y**, Abumrad NN, Flynn CR. Reducation in inflammatory gene expression in skeletal muscle from Roux-en-Y gastric bypass patients randomized to omentectomy 2011. *PLoS One* 6(12):e28577. PMID: PMC3241684.
273. Villegas R, Xiang YB, Elasy T, Li HL, Yang G, Cai H, Ye F, Gao YT, **Shyr Y**, Zheng W, Shu XO. Fish, shellfish, and long-chain n-3 fatty acid consumption and risk of incident type 2 diabetes in middle-aged Chinese men and women. *Am J Clin Nutr* 2011;94(2):543-551. PMID: PMC3142729.

274. White RL, Jr, Ayers GD, Stell VH, Ding S, Gershenwald JE, Salo JC, Pockaj BA, Essner R, Faries M, Charney KJ, Avisar E, Hauschild A, Egberts F, Averbuck BJ, Garberoglio CA, Vetto JT, Ross MI, Chu D, Trisal V, Hoekstra H, Whitman E, Wanebo HJ, Debonis D, Vezeridis M, Chevinsky A, Kashani-Sabet M, **Shyr Y**, Berry L, Zhao Z, Soong SJ, Leong SP. Factors predictive of the status of sentinel lymph nodes in melanoma patients from a large multicenter database. *Annals of Surgical Oncology* 2011;18(13):3593-3600. PMID: PMC3461951.
275. Xing X, Li Q, Sun H, Fu X, Zhan F, Huang X, Li J, Chen C, **Shyr Y**, Zeng R, Li Y, Lu X. The discovery of novel protein-coding features in mouse genome based on mass spectrometry data. *Genomics* 2011;98(5):343-351.
276. Abramson RG, Su PF, **Shyr Y**. Quantitative metrics in clinical radiology reporting: a snapshot perspective from a single mixed academic-community practice. *Magnetic Resonance Imaging* 2012;30(9):1357-1366. PMID: PMC3466403.
277. Baumann JL, Li M, Poulsen A, Chadwick NS, Cai Q, Chung CH, **Shyr Y**, Olsen JH, Zheng W, Slebos RJ. Analysis of microsatellite mutations in buccal cells from a case-control study for lung cancer. *Cancer Epidemiol* 2012;36(1):e33-9. PMID: PMC3259162.
278. Brantley-Sieders DM, Fan KH, Deming-Halverson SL, **Shyr Y**, Cook RS. Local breast cancer spatial patterning: a tool for community health resource allocation to address local disparities in breast cancer mortality. *PLoS One* 2012;7(9):e45238. PMID: PMC3460936.
279. Chen X, Li J, Gray W, Lehmann B, Bauer J, **Shyr Y**, Pietenpol, J. TNBCtype: A subtyping tool for triple-negative breast cancer. *Cancer Informatics* 2012;11:147-156. PMID: PMC3412597.
280. Engelhardt BG, Sengsayadeth SM, Jagasia M, Savani BN, Kassim AA, Lu P, **Shyr Y**, Yoder SM, Rock MT, Crowe JE Jr. Tissue-specific regulatory T cells: biomarker for acute graft-vs-host disease and survival. *Experimental Hematology* 2012;40(12):974-982. PMID: PMC3611587.
281. Fu Z, Shrubsole MJ, Li G, Smalley WE, Hein DW, Chen Z, **Shyr Y**, Cai Q, Ness RM, Zheng W. Using gene-environment interaction analyses to clarify the role of well-done meat and heterocyclic amine exposure in the etiology of colorectal polyps. *Am J Clin Nutr* 2012;96(5):1119-1128. PMID: PMC3471199.
282. Fu Z, Shrubsole MJ, Smalley WE, Wu H, Chen Z, **Shyr Y**, Ness RM, Zheng W. Lifestyle factors and their combined impact on the risk of colorectal polyps. *Am J Epidemiol* 2012;176(9):766-776. PMID: PMC3571253.
283. Guo Y, Cai Q, Samuels DC, Ye F, Long J, Li C, Winther JF, Tawn EJ, Stovall M, Lähteenmäki P, Malia N, Levy S, Shaffer C, **Shyr Y**, Shu X, Boice JD Jr. The use of next generation sequencing technology to study the effect of radiation therapy on mitochondrial DNA mutation. *Mutation Research—Genetic Toxicology and Environmental Mutagenesis* 2012;744(2):154-160. PMID: PMC3354959.
284. Guo Y, Li J, Li CI, Long J, Samuels DC, **Shyr Y**. The effect of strand bias in Illumina short-read sequencing data. *BMC Genomics* 2012;13(1):666. PMID: PMC3532123.
285. Hong J, Katsha A, Lu P, **Shyr Y**, Belkhir A, El-Rifai W. Regulation of ERBB2 receptor by t-DARPP mediates trastuzumab resistance in human esophageal adenocarcinoma. *Cancer Research* 2012;72(17):4504-4514. PMID: PMC3432752.
286. Huang Y, Zhao Z, Xu H, **Shyr Y**, Zhang B. Advances in systems biology: computational algorithms and applications. *BMC Systems Biology* 2012;6 Suppl 3:S1. PMID: PMC3524016.
287. Kikuchi T, Hassanein M, Amann JM, Liu Q, Slebos RJ, Rahman SM, Kaufman JM, Zhang X, Hoeksema MD, Harris BK, Li M, **Shyr Y**, Gonzalez AL, Zimmerman LJ, Liebler DC, Massion PP, Carbone DP. In-depth proteomic analysis of non-small cell lung cancer to discover molecular targets and candidate biomarkers. *Molecular & Cellular Proteomics* 2012;11(10):916-932. PMID: PMC3494148.
288. Li X, Sterling JA, Fan K, Vessella RL, **Shyr Y**, Hayward SW, Matrisian LM, Bhowmick NA. Loss of TGF- β responsiveness in prostate stromal cells alters chemokine levels and facilitates the development of mixed osteoblastic/osteolytic bone lesions. *Molecular Cancer Research* 2012;10(4):494-503. PMID: PMC3900026.

289. Liu Q, Guo Y, Li J, Long J, Zhang B, **Shyr Y**. Steps to ensure accuracy in genotype and SNP calling from Illumina sequencing data. *BMC Genomics* 2012;13 Suppl 8:S8. PMID: PMC3535703.
290. Pecot CV, Li M, Zhang XJ, Rajanbabu R, Calitri C, Bungum A, Jett JR, Putnam JB, Callaway-Lane C, Deppen S, Grogan EL, Carbone DP, Worrell JA, Moons KGM, **Shyr Y**, Massion PP. Added value of a serum proteomic signature in the diagnostic evaluation of lung nodules. *Cancer Epidemiol Biomarkers Prev* 2012;21(5):786-792. PMID: PMC3660018.
291. Powell AE, Wang Y, Li Y, Poulin EJ, Means AL, Washington MK, Higginbotham JN, Juchheim A, Prasad N, Levy SE, Guo Y, **Shyr Y**, Aronow BJ, Haigis KM, Franklin JL, Coffey RJ. The pan-ErbB negative regulator Lrig1 is an intestinal stem cell marker that functions as a tumor suppressor. *Cell* 2012;149(1):146-158. PMID: PMC3563328.
292. Rao M, Song W, Jiang A, **Shyr Y**, Lev S, Greenstein D, Brantley-Sieders D, Chen J. VAMP-associated protein B (VAPB) promotes breast tumor growth by modulation of Akt activity. *PLoS One* 2012;7(10):e46281. PMID: PMC3462209.
293. **Shyr Y**. Rigorous quantitative sciences integration: The foundation of high-dimensional genomic research. *Clin Exp Metastasis* 2012;29(7):641-643. PMID: PMC3485411.
294. Sosman JA, Kim KB, Schuchter L, Gonzalez R, Pavlick AC, Weber JA, McArthur GA, Hutson TE, Moschos SJ, Flaherty KT, Hersey P, Kefford R, Lawrence D, Puzanov I, Lewis KD, Amaravadi RK, Chmielowski B, Lawrence HJ, **Shyr Y**, Ye F, Li J, Nolop KB, Lee RJ, Joe AK, Ribas A. Survival in BRAF V600-mutant advanced melanoma treated with vemurafenib. *N Engl J Med* 2012;366(8):707-714. PMID: PMC3724515.
295. Stover DG, Reddy VK, **Shyr Y**, Savani BN, Reddy N. Long-term impact of prior rituximab therapy and early lymphocyte recovery on auto-SCT outcome for diffuse large B-cell lymphoma. *Bone Marrow Transplant* 2012;47(1):82-87.
296. Su PF, Chen X, Chen H, **Shyr Y**. Statistical aspects of omics data analysis using the random compound covariate. *BMC Systems Biology* 2012;6 Suppl 3:S11. PMID: PMC3524312.
297. Su Y, Vilgelm AE, Kelley MC, Hawkins OE, Liu Y, Boyd KL, Kantrow S, Splittgerber RC, Short SP, Sobolik-Delmaire T, Zaja-Milatovic S, Dahlman KB, Amiri KI, Jiang A, Lu P, **Shyr Y**, Stuart DD, Levy S, Sosman JA, Richmond A. RAF265 inhibits the growth of advanced human melanoma tumors. *Clin Cancer Res* 2012;18(8):2184-2198. PMID: PMC3724517.
298. Talati M, Seeley E, Ihida-Stansbury K, Delisser H, McDonald H, Ye F, Zhang X, **Shyr Y**, Caprioli R, Meyrick B. Altered expression of nuclear and cytoplasmic histone H1 in pulmonary artery and pulmonary artery smooth muscle cells in patients with IPAH. *Pulmonary Circulation* 2012;2(3):340-351. PMID: PMC3487302.
299. Vlacich G, Diaz R, Thorpe SW, Murphy BA, Kirby W, Sinard RJ, Shakhtour B, **Shyr Y**, Murphy P, Netteville JL, Yarbrough WG, Cmelak AJ. Intensity-modulated radiation therapy with concurrent Carboplatin and Paclitaxel for locally advanced head and neck cancer: toxicities and efficacy. *Oncologist* 2012;17(5):673-681. PMID: PMC3360907.
300. Wentz SC, Zhao ZG, **Shyr Y**, Shi CJ, Merchant NB, Washington K, Xia F, Chakravarthy AB. Lymph node ratio and preoperative CA 19-9 levels predict overall survival and recurrence-free survival in patients with resected pancreatic adenocarcinoma. *World Journal of Gastrointestinal Oncology* 2012;4(10):207-215. PMID: PMC3581835.
301. Winther JF, Olsen JH, Wu H, **Shyr Y**, Mulvihill JJ, Stovall M, Nielsen A, Schmiegelow M, Boice JD Jr. Genetic disease in the children of Danish survivors of childhood and adolescent cancer. *J Clin Oncol* 2012;30(1):27-33. PMID: PMC3255559.
302. Xu BJ, An QA, Srinivasa Gowda S, Yan W, Pierce LA, Abel TW, Rush SZ, Cooper MK, Ye F, **Shyr Y**, Weaver KD, Thompson RC. Identification of blood protein biomarkers that aid in the clinical assessment of patients with malignant glioma. *Int J Oncol* 2012;40(6):1995-2003.
303. Ye F, Bauer JA, Pietenpol JA, **Shyr Y**. Analysis of high-throughput RNAi screening data in identifying genes mediating sensitivity to chemotherapeutic drugs: statistical approaches and perspectives. *BMC Genomics* 2012;13 Suppl 8:S3. PMID: PMC3535706.

304. Ye F, **Shyr Y**. Adaptive clinical trial design: From simple dose-finding trials to large-scale personalized medicine trials. *Personalized Medicine Oncology* 2012;1(4).
305. Zeng CH, Le W, Ni Z, Zhang M, Miao L, Luo P, Wang R, Lv Z, Chen J, Tian J, Chen N, Pan X, Fu P, Hu Z, Wang L, Fan Q, Zheng H, Zhang D, Wang Y, Huo Y, Lin H, Chen S, Sun S, Wang Y, Liu Z, Liu D, Ma L, Pan T, Zhang A, Jiang X, Xing C, Sun B, Zhou Q, Tang W, Liu F, Liu Y, Liang S, Xu F, Huang Q, Shen H, Wang J, **Shyr Y**, Phillips S, Troyanov S, Fogo A, Liu ZH. A multicenter application and evaluation of the oxford classification of IgA nephropathy in adult Chinese patients. *American Journal of Kidney Disease* 2012; 60(5): 812-820.
306. Zhao Z, Huang Y, Zhang B, **Shyr Y**, Xu H. Genomics in 2012: challenges and opportunities in the next generation sequencing era. *BMC Genomics* 2012;13 Suppl 8:S1. PMID: PMC3535713.
307. Zhuang G, Song W, Amato K, Hwang Y, Lee K, Boothby M, Ye F, Guo Y, **Shyr Y**, Lin L, Carbone DP, Brantley-Sieders DM, Chen J. Effects of cancer-associated EPHA3 mutations on lung cancer. *J Natl Cancer Inst* 2012;104(15):1183-1198. PMID: PMC3611812.
308. Al-Greene NT, Means AL, Lu P, Jiang A, Schmidt CR, Chakravarthy AB, Merchant NB, Washington MK, Zhang B, Shyr Y, Deane NG, Beauchamp RD. Four jointed box 1 promotes angiogenesis and is associated with poor patient survival in colorectal carcinoma. *PLoS One* 2013;8(7):e69660. PMID: PMC3726759.
309. Ausborn NL, Wang T, Wentz SC, Washington MK, Merchant NB, Zhao Z, **Shyr Y**, Chakravarthy AB, Xia F. 53BP1 expression is a modifier of the prognostic value of lymph node ratio and CA 19-9 in pancreatic adenocarcinoma. *BMC Cancer* 2013;13(1):155. PMID: PMC3636043.
310. Dexheimer JW, Abramo TJ, Arnold DH, Johnson KB, **Shyr Y**, Ye F, Fan KH, Patel N, Aronsky D. An asthma management system in a pediatric emergency department. *Int J Medical Informatics* 2013;82(4):230-238. PMID: PMC3646328.
311. Guo Y, Li J, Li CI, **Shyr Y**, Samuels DC. MitoSeek: Extracting mitochondrial information and performing high throughput mitochondria sequencing analysis. *Bioinformatics* 2013;29(9):1210-1211.
312. Guo Y, Li CI, Sheng Q, Winther JF, Cai Q, Boice JD, **Shyr Y**. Very low-level heteroplasmy mtDNA variations are inherited in humans. *J Genet Genomics* 2013;40(12):607-615. PMID: PMC4149221.
313. Guo Y, Li CI, Ye F, **Shyr Y**. Evaluation of read count based RNAseq analysis methods. *BMC Genomics* 2013;14(Suppl 8):S2. PMID: PMC4092879
314. Guo Y, Samuels DC, Li J, Clark T, Li CI, **Shyr Y**. Evaluation of allele frequency estimation using pooled sequencing data simulation. *Scientific World Journal* 2013;2013:895496. PMID: PMC3582166.
315. Guo Y, Sheng Q, Li J, Ye F, Samuels DC, **Shyr Y**. Large scale comparison of gene expression levels by microarrays and RNAseq using TCGA data. *PLoS One* 2013;8(8):e71462. PMID: PMC3748065.
316. Guo Y, Sheng Q, Samuels DC, Lehmann B, Bauer JA, Pietenpol J, **Shyr Y**. Comparative study of exome copy number variation estimation tools using array comparative genomic hybridization as control. *Biomed Res Int* 2013;2013:915636. PMID: PMC3835197.
317. Hansen AG, Freeman TJ, Arnold SA, Starchenko A, Jones-Paris CR, Gilger MA, Washington MK, Fan KH, **Shyr Y**, Beauchamp RD, Zijlstra A. Elevated ALCAM shedding in colorectal cancer correlates with poor patient outcome. *Cancer Research* 2013;73(10):2955-2964. PMID: PMC3660148.
318. Han D, Zager JS, **Shyr Y**, Chen H, Berry LD, Iyengar S, Djulbegovic M, Weber JL, Marzban SS, Sondak VK, Messina JL, Vetto JT, White RL, Pockaj B, Mozzillo N, Charney KJ, Avisar E, Krouse R, Kashani-Sabet M, Leong SP. Clinicopathologic predictors of sentinel lymph node metastasis in thin melanoma. *Journal of Clinical Pathology* 2013;31(35):4387-4393.
319. Katsha A, Soutto M, Sehdev V, Peng D, Washington MK, Piazuolo MB, Tantawy MN, Manning HC, Lu P, **Shyr Y**, Ecsedy J, Belkhiri A, El-Rifai W. Aurora kinase A promotes inflammation and tumorigenesis in mice and human gastric neoplasia. *Gastroenterology* 2013;145(6):1312-1322. PMID: PMC3840093.
320. Li C-I, Su P-F, Guo Y, **Shyr Y**. Sample size calculation for differential expression analysis of RNA-seq data under Poisson distribution. *IJCBD* 2013;6(4):358-375. PMID: PMC3874726.

321. Li C-I, Su P-F, **Shyr Y**. Sample size calculation based on exact test for assessing differential expression analysis in RNA-seq data. *BMC Bioinformatics* 2013;14(1):357. PMID: PMC3924199.
322. Liu Q, Halvey PJ, **Shyr Y**, Slebos RJ, Liebler DC, Zhang B. Integrative omics analysis reveals the importance and scope of translational repression in microRNA-mediated regulation. *Mol Cell Proteomics* 2013;12(7):1900-1911. PMID: PMC3708174.
323. Qiu Q, Lu P, Xiang Y, **Shyr Y**, Chen X, Lehmann BD, Viox DJ, George AL Jr, Yi Y. A data similarity-based strategy for meta-analysis of transcriptional profiles in cancer. *PLoS One* 2013;8(1):e54979. PMID: PMC3558433.
324. Rexer BN, **Shyr Y**, Arteaga CL. Phosphatase and tensin homolog deficiency and resistance to trastuzumab and chemotherapy. *J Clin Oncol* 2013;31(17):2073-2075.
325. Samuels DC, Han L, Li J, Quanghu S, Clark TA, **Shyr Y**, Guo Y. Finding the lost treasures in exome sequencing data. *Trends Genet* 2013;29(10):593-599. PMID: PMC3926691.
326. Udyavar AR, Hoeksema MD, Clark JE, Zou Y, Tang Z, Li Z, Li M, Chen H, Statnikov A, **Shyr Y**, Liebler DC, Field J, Eisenberg R, Estrada L, Massion PP, Quaranta V. Co-expression network analysis identifies Spleen Tyrosine Kinase (SYK) as a candidate oncogenic driver in a subset of small-cell lung cancer. *BMC Systems Biology* 2013;7(Suppl 5):S1. PMID: PMC4029366
327. Wang T, Wentz SC, Ausborn NL, Washington MK, Merchant N, Zhao Z, **Shyr Y**, Chakravarthy AB, Xia F. Pattern of breast cancer susceptibility gene 1 expression is a potential prognostic biomarker in resectable pancreatic ductal adenocarcinoma. *Pancreas* 2013;42(6):977-982. PMID: PMC4026161.
328. Yan L, Womack B, Wotton D, Guo Y, **Shyr Y**, Dave U, Li C, Hiebert S, Brandt S, Hamid R. Tgif1 regulates quiescence and self-renewal of hematopoietic stem cells. *Molecular and Cell Biology* 2013;33(24):4824-4833. PMID: PMC3889555.
329. Abrams JA, Appelman HD, Beer DG, Berry LD, Chak A, Falk GW, Fitzgerald RC, Ginsberg GG, Grady WM, Joshi BP, Lynch JP, Markowitz S, Richmond E, Rustgi AK, Seibel EJ, Shaheen NJ, **Shyr Y**, Umar A, Wang KK, Wang TC, Wang TD, Yassin R. Barrett's Esophagus Translational Research Network (BETRNet): The pivotal role of multi-institutional collaboration in esophageal adenocarcinoma research. *Gastroenterology* 2014;146(7):1586-1590. PMID: PMC4224108.
330. Abramson VG, Cooper Lloyd M, Ballinger T, Sanders ME, Du L, Lai D, Su Z, Mayer I, Levy M, Lafrance DR, Vnencak-Jones CL, **Shyr Y**, Dahlman KB, Pao W, Arteaga CL. Characterization of breast cancers with PI3K mutations in an academic practice setting using SNaPshot profiling. *Breast Cancer Res Treat* 2014;145(2):389-399. PMID: PMC4046906.
331. Boyd AS, Su PF, **Shyr Y**, Tang YW. Squamous cell carcinomas in situ arising in seborrheic keratoses: an association with concomitant immunosuppression? *Int J Dermatol* 2014;53(11):1346-1350.
332. Cardin DB, Goff L, Li CI, **Shyr Y**, Winkler C, Devore R, Schlabach L, Holloway M, McClanahan P, Meyer K, Grigorieva J, Berlin J, Chan E. Phase II trial of sorafenib and erlotinib in advanced pancreatic cancer. *Cancer Med* 2014. PMID: PMC4101748.
333. Cleveland SM, Goodings C, Tripathi RM, Elliott N, Thompson MA, Guo Y, **Shyr Y**, Dave UP. LIM domain only-2 (Lmo2) induces T-cell leukemia with epigenetic deregulation of CD4. *Exp Hematol* 2014;42(7):581-593. PMID: PMC4241760.
334. Dexheimer JW, Abramo TJ, Arnold DH, Johnson K, **Shyr Y**, Ye F, Fan KH, Patel N, Aronsky D. Implementation and evaluation of an integrated computerized asthma management system in a pediatric emergency department: A randomized clinical trial. *Int J Med Inform* 2014;83(11):805-813.
335. Donahue MJ, Dethrage LM, Faraco CC, Jordan LC, Clemmons P, Singer R, Mocco J, **Shyr Y**, Desai A, O'Duffy A, Riebau D, Hermann L, Connors J, Kirshner H, Strother MK. Routine clinical evaluation of cerebrovascular reserve capacity using carbogen in patients with intracranial stenosis. *Stroke* 2014;45(8):2335-2341. PMID: PMC4118584.
336. Galadanci NA, Abdullahi SU, Tabari MA, Abubakar S, Belonwu R, Salihu A, Neville K, Kirkham F, Inusa B, **Shyr Y**, Phillips S, Kassim AA, Jordan LC, Aliyu MH, Covert BV, DeBaun MR. Primary stroke prevention in Nigerian children with sickle cell disease (SPIN): Challenges of conducting a feasibility test. *Pediatr Blood Cancer* 2014. PMID: PMC4304992

337. Guo Y, Bosompem A, Zhong X, Clark T, **Shyr Y**, Kim AS. A comparison of microRNA sequencing reproducibility and noise reduction using mirVana and TRIzol isolation methods. *Int J Comput Biol Drug Des* 2014;7(2-3):102-112.
338. Guo Y, He J, Zhao S, Wu H, Zhong X, Sheng Q, Samuels DC, **Shyr Y**, Long J. Illumina human exome genotyping array clustering and quality control. *Nat Protoc* 2014;9(11):2643-2662.
339. Guo Y, Zhao S, Lehmann BD, Sheng Q, Shaver TM, Stricker TP, Pietenpol JA, **Shyr Y**. Detection of internal exon deletion with exon Del. *BMC Bioinformatics* 2014;15:332. PMID: PMC4288651.
340. Guo Y, Zhao S, Li CI, Sheng Q, **Shyr Y**. RNAseqPS: A web tool for estimating sample size and power for RNAseq experiment. *Cancer Inform* 2014;13(Suppl 6):1-5. PMID: PMC4213196.
341. Guo Y, Zhao S, Sheng Q, Ye F, Li J, Lehmann B, Pietenpol J, Samuels DC, **Shyr Y**. Multi-perspective quality control of Illumina exome sequencing data using QC3. *Genomics* 2014;103(5-6):323-328.
342. Guo Y, Zhao S, Su PF, Li CI, Ye F, Flynn CR, **Shyr Y**. Statistical strategies for microRNAseq batch effect reduction. *Transl Cancer Res* 2014; 3(3):260-265. PMID: PMC4171948.
343. Guo Y, Zhao S, Ye F, Sheng Q, **Shyr Y**. MultiRankSeq: multiperspective approach for RNAseq differential expression analysis and quality control. *Biomed Res Int* 2014;2014:248090. PMID: PMC4058234.
344. Hansen AG, Arnold SA, Jiang M, Palmer TD, Ketova T, Merkel A, Pickup M, Samaras S, **Shyr Y**, Moses HL, Hayward SW, Sterling JA, Zijlstra A. ALCAM/CD166 is a TGF-beta responsive marker and functional regulator of prostate cancer metastasis to bone. *Cancer Research* 2014. PMID: PMC4149913.
345. Kaufman JM, Amann JM, Park K, Arasada RR, Li H, **Shyr Y**, Carbone DP. LKB1 loss induces characteristic patterns of gene expression in human tumors associated with NRF2 activation and attenuation of PI3K-AKT. *J Thorac Oncol* 2014;9(6):794-804. PMID: PMC4026179.
346. Kirabo A, Fontana V, de Faria AP, Loperena R, Galindo CL, Wu J, Bikineyeva AT, Dikalov S, Xiao L, Chen W, Saleh MA, Trott DW, Itani HA, Vinh A, Amarnath V, Amarnath K, Guzik TJ, Bernstein KE, Shen XZ, **Shyr Y**, Chen SC, Mernaugh RL, Laffer CL, Elijevich F, Davies SS, Moreno LH, Madhur MS, Roberts J 2nd, Harrison DG. DC isoketal-modified proteins activate T cell and promote hypertension. *J Clin Invest* 2014;124(10):4642-4656. PMID: PMC4220659.
347. Kris MG, Johnson BE, Berry LD, Kwitkowski DJ, Iafrate AJ, Wistuba II, Varella-Garcia M, Franklin WA, Aronson SL, Su PF, **Shyr Y**, Camidge DR, Sequist LV, Glisson BS, Khuri FR, Garon EB, Pao W, Rudin C, Shiller J, Haura EB, Socinski M, Shirai K, Chen H, Giaccone G, Ladanyi M, Kugler K, Minna JD, Bunn PA. Using multiplexed assays of oncogenic drivers in lung cancers to select target drugs. *JAMA* 2014;311(19):1998-2006. PMID: PMC4163053.
348. Lammers PE, **Shyr Y**, Li CI, Hutchison AS, Sandler A, Carbone DP, Johnson DH, Keedy VL, Horn L. Phase II study of bendamustine in relapsed chemotherapy sensitive or resistant small-cell lung cancer. *J Thorac Oncol* 2014;9(4):559-562. PMID: PMC3990869.
349. Liu Q, Su PF, Zhao S, **Shyr Y**. Transcriptome-wide signatures of tumor stage in kidney renal clear cell carcinoma: connecting copy number variation, methylation and transcription factor activity. *Genome Med* 2014;6(12):117. PMID: PMC4293006.
350. Lu X, An H, Jin R, Zou M, Guo Y, Su PF, Liu D, **Shyr Y**, Yarbrough WG. PPM1A is a RelA phosphatase with tumor suppressor-like activity. *Oncogene* 2014;33(22):2918-2927. PMID: PMC3897569.
351. Mikhitarian K, Pollen M, Zhao Z, **Shyr Y**, Merchant NB, Parikh A, Revetta F, Washington MK, Vnencak-Jones C, Shi C. Epidermal growth factor receptor signaling pathway is frequently altered in ampullary carcinoma at protein and genetic levels. *Modern Pathology* 2014; 27(5):665-674. PMID: PMC4007414.
352. Novitskiy SV, Forrester E, Pickup MW, Gorska AE, Chytil A, Aakre M, Polosukhina D, Owens P, Yusupova DR, Zhao Z, Ye F, **Shyr Y**, Moses HL. Attenuated transforming growth factor beta signaling promotes metastasis in a model of HER2 mammary carcinogenesis. *Breast Cancer Res* 2014; 16(5):425. PMID: PMC4303109.
353. Sheng Q, **Shyr Y**, Chen X. DupChecker: a bioconductor package for checking high-throughput genomic data redundancy in meta-analysis. *BMC Bioinformatics* 2014; 15:323. PMID: PMC4261523.

354. Shen EZ, Song CQ, Lin Y, Zhang WH, Su PF, Liu WY, Zhang P, Xu J, Zhan C, Wang X, **Shyr Y**, Cheng H, Dong MQ. Mitoflash frequency in early adulthood predicts lifespan in *Caenorhabditis elegans*. *Nature* 2014; 508(7494):128-132.
355. Sidorova TN, Mace LC, Wells KS, Yermalitskaya LV, Su PF, **Shyr Y**, Atkinson JB, Fogo AB, Prinsen JK, Byrne JG, Petracek MR, Greelish JP, Hoff SJ, Ball SK, Glabe CG, Brown NJ, Barnett JV, Murray KT. Hypertension is associated with preamyloid oligomers in human atrium: a missing link in atrial pathophysiology? *J Am Heart Assoc* 2014; 3(6). PMID: PMC4338732.
356. Sidorova T, Mace LC, Wells KS, Yermalitskaya LV, Su PF, **Shyr Y**, Byrne JG, Petracek MR, Greelish JP, Hoff SJ, Ball SK, Glabe CG, Brown NJ, Barnett JV, Murray KT. Quantitative imaging of preamyloid oligomers, a novel structural abnormality in human atrial samples. *J Histochem Cytochem* 2014. PMID: PMC4072180.
357. Strother MK, Anderson MD, Singer RJ, Du L, Moore RD, **Shyr Y**, Ladner TR, Arteaga D, Day MA, Clemmons PF, Donahue MJ. Cerebrovascular collaterals correlate with disease severity in adult North American patients with Moyamoya disease. *AJNR Am J Neuroradiol* 2014; 35(7):1318-1324. PMID: PMC4367488.
358. Su PF, Li CI, **Shyr Y**. Sample size determination for paired right-censored data based on the difference of Kaplan-Meier estimates. *Computational Statistics and Data Analysis* 2014; 74:39-51. PMID: PMC3931470.
359. Trott DW, Thabet SR, Kirabo A, Saleh MA, Itani H, Norlander AE, Wu J, Goldstein A, Arendshorst WJ, Madhur MS, Chen W, Li CI, **Shyr Y**, Harrison DG. Oligoclonal CD8+ T cells play a critical role in the development of hypertension. *Hypertension* 2014; 64(5):1108-1115. PMID: PMC4191997.
360. Tu C, Sheng Q, Li J, Shen X, Zhang M, **Shyr Y**, Qu J. ICan: An optimized ion-current-based quantification procedure with enhanced quantitative accuracy and sensitivity in biomarker discovery. *J Proteome Res* 2014; 13(12):5888-5897. PMID: PMC4261937.
361. Vlacich G, Spratt DE, Diaz R, Phillips JG, Crass J, Li CI, **Shyr Y**, Cmelak AJ. Dose to the inferior pharyngeal constrictor predicts prolonged gastrostomy tube dependence with concurrent intensity-modulated radiation therapy and chemotherapy for locally-advanced head and neck cancer. *Radiother Oncol* 2014; 110(3):435-440.
362. Wang J, Raskin L, Samuels DC, **Shyr Y**, Guo Y. Genome measures used for quality control are dependent on gene function and ancestry. *Bioinformatics* 2014. PMID: PMC4308666.
363. Weeke P, Mosley JD, Hanna D, Delaney JT, Shaffer C, Wells QS, Van Driest S, Karnes JH, Ingram C, Guo Y, **Shyr Y**, Norris K, Kannankeril PJ, Ramirez AH, Smith JD, Mardis ER, Nickerson D, George AL Jr, Roden DM. Exome sequencing implicates an increased burden of rare potassium channel variants in the risk of drug-induced long QT interval syndrome. *J Am Coll Cardiol* 2014; 63(14):1430-1437. PMID: PMC4018823.
364. Zhao S, Guo Y, Sheng Q, **Shyr Y**. Advanced heat map and clustering analysis using heatmap3. *Biomed Res Int* 2014; 2014:986048. PMID: PMC4124803.
365. Boyd AS, Chen SC, **Shyr Y**. Intradermal nevi with atypical nuclei in the elderly: The senescent nevus. *J Am Acad Dermatol* 2015; 73(3): 500-6. PMID: 26188628.
366. Cohen DN, Lawson SK, Shaver AC, Du L, Nguyen HP, He Q, Johnson DB, Lumbang WA, Moody BR, Prescott JL, Chandra PK, Boyd AS, Zwerner JP, Robbins JB, Tying SK, Rady PL, Chappell JD, **Shyr Y**, Infante JR, Sosman JA. Contribution of beta-HPV infection and UV-damage to rapid-onset cutaneous squamous cell carcinoma during BRAF-inhibition therapy. *Clin Cancer Res* 2015. PMID: PMC4452444.
367. Deng X, Han D, Dezert J, Deng Y, **Shyr Y**. Evidence combination from an evolutionary game theory perspective. *IEEE Trans Cybern* 2015.
368. Erickson JJ, Lu P, Wen S, Hastings AK, Gilchuk P, Joyce S, **Shyr Y**, Williams JV. Acute viral respiratory infection rapidly induces a CD8+ T cell exhaustion-like phenotype. *J Immunol* 2015; 195(9):4319-30. PMID: PMC4733528.

369. Fata CR, Seeley EH, Desouki MM, Du L, Gwin K, Hanley KZ, Hecht JL, Jarboe EA, Liang SX, Parkash V, Quick CM, Zheng W, **Shyr Y**, Caprioli RM, Fadare O. Are clear cell carcinomas of the ovary and endometrium phenotypically identical? A proteomic analysis. *Hum Pathol* 2015; 46(10):1427-36.
370. Galadanci NA, Abdullahi SU, Tabari MA, Abubakar S, Belonwu R, Salihu A, Neville K, Kirkham F, Inusa B, **Shyr Y**, Phillips S, Kassim AA, Jordan LC, Aliyu MH, Covert BV, DeBaun MR. Primary stroke prevention in Nigerian children with sickle cell disease (SPIN): challenges of conducting a feasibility trial. *Pediatr Blood Cancer* 2015;62(3):395-401. PMID: PMC4304992.
371. Goodings C, Smith E, Mathias E, Elliot N, Cleveland SM, Tripathi RM, Layer JH, Chen X, Guo Y, **Shyr Y**, Hamid R, Du Y, Dave UP. Hhex is required at multiple stages of adult hematopoietic stem and progenitor cell differentiation. *Stem Cells* 2015. PMID: PMC4641572.
372. Goodings C, Tripathi R, Cleveland SM, Elliott N, Guo Y, **Shyr Y**, Dave UP. Enforced expression of E47 has differential effects on Lmo2-induced T-cell leukemias. *Leuk Res* 2015;39(1):100-109. PMID: PMC4277943.
373. Guo Y, Zhao S, Sheng Q, Guo M, Lehmann B, Pietenpol J, Samuels DC, **Shyr Y**. RNAseq by total RNA library identifies additional RNAs compared to poly(A) RNA library. *Biomed Res Int* 2015; 2015: 862130. PMID: PMC4620295.
374. Hoek KL, Samir P, Howard LM, Niu X, Prasad N, Galassie A, Liu Q, Allos TM, Floyd KA, Guo Y, **Shyr Y**, Levy SE, Joyce S, Edwards KM, Link AJ. A cell-based systems biology assessment of human blood to monitor immune responses after influenza vaccination. *PLoS One* 2015;10(2):e0118528. PMID: PMC4338067.
375. Kummerow KL, Du L, Penson DF, **Shyr Y**, Hooks MA. Nationwide trends in mastectomy for early-stage breast cancer. *JAMA Surg* 2015;150(1):9-16.
376. Lammers PE, Lu B, Horn L, **Shyr Y**, Keedy V. nab-Paclitaxel in combination with weekly carboplatin with concurrent radiotherapy in stage III non-small cell lung cancer. *Oncologist* 2015;20(5):491-192. PMID: PMC4425395.
377. Liu Q, Su PF, Zhao S, **Shyr Y**. Transcriptome-wide signatures of tumor stage in kidney renal clear cell carcinoma: connecting copy number variation, methylation and transcription factor activity. *Genome Med* 2015;6(12):117. PMID: PMC4293006.
378. Liu Q, Zhong X, Madison B, Rustig A, **Shyr Y**. Assessing computational steps for CLIP-seq data analysis. *Biomed Res Int* 2015;2015:196082. PMID: PMC4619761.
379. Lockney NA, Zhang M, Lu Y, Sopha SC, Washington MK, Merchant N, Zhao Z, **Shyr Y**, Chakravarthy AB, Xia F. Pyruvate kinase muscle isoenzyme 2 (PKM2) expression is associated with overall survival in pancreatic ductal adenocarcinoma. *J Gastrointest Cancer* 2015;46(4):390-398.
380. Samuelson LE, Scherer RL, VanSaun MN, Fan KH, Dozier EA, Carter KJ, Koyama T, **Shyr Y**, Aschner M, Stanwood GD, Bornhop DJ, Matrisian LM, McIntyre JO. New tools for the quantitative assessment of prodrug delivery and neurotoxicity. *Neurotoxicology* 2015;47:88-98. PMID: PMC4501381.
381. Sheng Q, Li R, Dai J, Li Q, Su Z, Guo Y, Li C, **Shyr Y**, Zeng R. Preprocessing significantly improves the peptide/protein identification sensitivity of high resolution isobarically labeled tandem mass spectrometry data. *Mol Cell Proteomics* 2015;14(2):405-417. PMID: PMC4350035.
382. **Shyr Y**, Horn L, Berry L. Are we making progress in lung cancer using progression-free survival as a surrogate end point? *JAMA Oncol* 2015;1(2):202-203.
383. Tu C, Sheng Q, Li J, Ma D, Shen X, Wang X, **Shyr Y**, Yi Z, Qu J. Optimization of search engines and postprocessing approaches to maximize peptide and protein identification for high-resolution mass data. *J Proteome Res* 2015;14(11):4662-4673.
384. Vilgelm AE, Johnson CA, Prasad N, Yang J, Chen SC, Ayers GD, Pawlikowski JS, Raman D, Sosman JA, Kelley M, Ecsedy JA, **Shyr Y**, Levy SE, Richmond A. Connecting the dots: Therapy-induced senescence and tumor-suppressive immune microenvironment. *J Natl Cancer Inst* 2015;108(6).
385. Wang J, Liu Q, **Shyr Y**. Dysregulated transcription across diverse cancer types reveals the importance of RNA-binding protein in carcinogenesis. *BMC Genomics* 2015;16 Suppl 7:S5. PMID: PMC4474540.

386. Wang J, Raskin L, Samuels DC, **Shyr Y**, Guo Y. Genome measures used for quality control are dependent on gene function and ancestry. *Bioinformatics* 2015; 31(3):318-23. PMID: PMC4308666.
387. Zhang P, Samuels DC, Lehmann B, Stricker T, Pietenpol J, **Shyr Y**, Guo Y. Mitochondria sequence mapping strategies and practicability of mitochondria variant detection from exome and RNA sequencing data. *Brief Bioinform* 2015.
388. Zhong X, Yang H, Zhao S, **Shyr Y**, Li B. Network-based stratification analysis of 13 major cancer types using mutations in panels of cancer genes. *BMC Genomics* 2015;16 Suppl 7: S7. PMID: PMC4474538.
389. Assad TR, Hemnes AR, Larkin EK, Glazer AM, Xu M, Wells QS, Farber-Eger EH, Sheng Q, **Shyr Y**, Harrell FE, Newman JH, Brittain EL. Clinical and biological insights into combined post- and pre-capillary pulmonary hypertension. *J Am Coll Cardiol* 2016;68(23):2525-2536. PMID: PMC5157701
390. Blum A, Venkitachalam S, Guo Y, Kieber-Emmons AM, Ravi L, Chandar AK, Iyer PG, Canto MI, Wang JS, Shaheen NJ, Barnholtz-Sloan JS, Markowitz SD, Willis JE, **Shyr Y**, Chak A, Varadan V, Guda K. RNA sequencing identifies transcriptionally-viable gene fusions in esophageal adenocarcinomas. *Cancer Research* 2016;76(19):5628-5633. PMID: PMC5050127
391. Eilertson B, Maruri F, Blackman A, Guo Y, Herrera M, van der Heijden Y, **Shyr Y**, Sterling TR. A novel resistance mutation in *eccC5* of the ESX-5 secretion system confers ofloxacin resistance in *Mycobacterium tuberculosis*. *J Antimicrobial Chemother* 2016;71(9):2419-27. PMID: PMC4992850.
392. Gilchuk P, Hill TM, Guy C, McMaster SR, Boyd KL, Rabacal WA, Lu P, **Shyr Y**, Kohlmeier JE, Sebzda E, Green DR, Joyce S. A distinct lung-Interstitial-resident memory $cd8^+$ t cell subset confers enhance protection to lower respiratory tract infection. *Cell Reports* 2016;16(7):1800-9. PMID: PMC5021515.
393. Iams WT, Yu H, **Shyr Y**, Patil T, Horn L, McCoach C, Kelly K, Doebele R, Camidge DR. PS01.68: Heterogeneous clinical syndromes existing within patients with stage IV KRAS mutant non-small cell lung cancer: topic: medical oncology. *J Thorac Oncol* 2016;11(11):S313.
394. Jamshedur Rahman S.M., Ji X, Zimmerman L, Li I, M, Harris B, Hoeksema M, Trenary I, Zou Y, Qian J, Slebos R, Beane J, Spira A, **Shyr Y**, Eisenberg R, Liebler D, Young J, Massion P. The airway epithelium undergoes metabolic reprogramming in individuals at high risk for lung cancer. *J Clin Invest* 2016;1(19):e88814. PMID: PMC5111517.
395. Johnson DB, Frampton GM, Rioth MJ, Yusko E, Xu Y, Guo X, Ennis RC, Fabrizio D, Chalmers ZR, Greenbowe J, Ali SM, Balasubramanian S, Sun JX, He Y, Frederick DT, Puzanov I, Balko JM, Cates JM, Ross JS, Sanders C, Robins H, **Shyr Y**, Miller V, Stephens PJ, Sullivan RJ, Sosman JA, Lovly CM. Targeted next generation sequencing identifies markers of response fo PD-1 blockade. *Cancer Immunol Res* 2016;4(11):959-967. PMID: PMC5134329.
396. Johnson DB, Estrada MV, Salgado R, Sanchez V, Doxie DB, Opalenik SR, Vilgelm AE, Feld E, Johnson AS, Greenplate AR, Sanders ME, Lovly CM, Frederick DT, Kelley MC, Richmond A, Irish JM, **Shyr Y**, Sullivan RJ, Puzanov I, Sosman JA, Balko JM. Melanoma-specific MHC-II expression represents a tumor-autonomous phenotype and predicts response to anti-PD-1/PD-L1 therapy. *Nat Commun* 2016; 2016:10582. PMID: PMC4740184.
397. Jordan LC, Gindville MC, Scott AO, Juttukonda MR, Strother MK, Kassim AA, Chen SC, Lu H, Pruthi S, **Shyr Y**, Donahue MJ. Non-invasive imaging of oxygen extraction fraction in adults with sickle-cell anaemia. *Brain* 2016;139(Pt. 3):738-50.
398. Kavanaugh G, Williams J, Morris AS, Nickels ML, Walker R, Koglin N, Stephens AW, Washington MK, Geevarghese SK, Liu Q, Ayers D, **Shyr Y**, Manning HC. Utility of [^{18}F]FSPG PET to image hepatocellular carcinoma: first clinical evaluation in a us population. *Mol Imaging Biol* 2016;18(6):924-934.
399. Lehmann BD, Jovanović B, Chen X, Estrada MV, Johnson KN, **Shyr Y**, Moses HL, Sanders ME, Pietenpol JA. Refinement of triple-negative breast cancer molecular subtypes: implications for neoadjuvant chemotherapy selection. *PLoS One* 2016;11(6). PMID: PMC4911051.
400. Li Cl, **Shyr Y**. Sample size calculation based on generalized linear models for differential expression analysis in RNA-seq data. *Stat Appl Genet Mol Bio* 2016;15(6):491-505.

401. Marshall CB, Mays DJ, Beeler JS, Rosenbluth JM, Boyd KL, Santos Guasch GL, Shaver TM, Tang LJ, Liu Q, **Shyr Y**, Venters BJ, Magnuson MA, Pietenpol JA. p73 is required for multiciliogenesis and regulates the foxj1-associated gene network. *Cell Rep* 2016;14(10):2289-300. PMID: PMC4794393.
402. Matsushita K, Yang HC, Mysore MM, Zhong J, **Shyr Y**, Ma LJ, Fogo AB. Effects of combination PPAR γ agonist and angiotensin receptor blocker on glomerulosclerosis. *Lab Invest* 2016;96(6):602-9. PMID: 26999660.
403. Samuels DC, Wang J, Ye F, He J, Levinson RT, Sheng Q, Zhao S, Capra JA, **Shyr Y**, Zheng W, Guo Y. Heterozygosity ratio: a robust global genomic measure of autozygosity and its association with height and disease risk. *Genetics* 2016;204(3):893-904. PMID: PMC5105867
404. Shaver TM, Lehmann BD, Beeler JS, Li CI, Li Z, Jin H, Stricker TP, **Shyr Y**, Pietenpol JA. Diverse, biologically relevant, and targetable gene rearrangements in triple-negative breast cancer and other malignancies. *Cancer Research* 2016;76(15):4305-4306.
405. Sheng Q, Vickers K, Zhao S, Wang J, Samuels DC, Koues O, **Shyr Y**, Guo Y. Multi-perspective quality control of Illumina RNA sequencing data analysis. *Brief Funct Genomics* 2016;103(5-6):323-8. PMID: 24703969.
406. Sheng Q, Zhao S, Li CI, **Shyr Y**, Guo Y. Practicability of detecting somatic point mutation from RNA high throughput sequencing data. *Genomics* 2016;107(5):163-169.
407. Tu C, Li J, Shen S, Sheng Q, **Shyr Y**, Qu J. Performance investigation of proteomic identification by hcd/cid fragmentations in combination with high/low-resolution detectors on a tribrid, high-field orbitrap instrument. *PLoS One* 2016; 11(7). PMID: PMC4966894.
408. Wang J, Liu Q, Sun J, **Shyr Y**. Disrupted cooperation between transcription factors across diverse cancer types. *BMC Genomics* 2016;17:560. PMID: PMC4975902.
409. Zhang P, Samuels DC, Lehmann B, Stricker T, Pietenpol J, **Shyr Y**, Guo Y. Mitochondria sequence mapping strategies and practicability of mitochondria variant detection from exome and RNA sequencing data. *Brief Bioinform* 2016;17(2): 224-32.
410. Zhang P, Samuels DC, Wang J, Zhao S, **Shyr Y**, Guo Y. Mitochondria single nucleotide variation across six blood cell types. *Mitochondrion* 2016;28:16-22.
411. Zhang P, Samuels DC, Zhao S, **Shyr Y**, Guo Y. Practicability of mitochondrial heteroplasmy detection through an Illumina genotyping array. *Mitochondrion* 2016;31:75-78.
412. Arnold Egloff SA, Du L, Loomans HA, Starchenko A, Su PF, Ketova T, Knoll PB, Wang J, Haddad AQ, Fadare O, Cates JM, Lotan Y, **Shyr Y**, Clark PE, Zijlstra A. Shed urinary ALCAM is an independent prognostic biomarker of three-year overall survival after cystectomy in patients with bladder cancer. *Oncotarget* 2017;8(1):722-741.
413. Chen Z, Soutto M, Rahman B, Fazili MW, Peng D, Piazuolo MB, Chen H, Washington MK, **Shyr Y**, El-Rifai W. Integrated expression analysis identifies transcription networks in mouse and human gastric neoplasia. *Genes Chromosomes Cancer* 2017;56(7):535-547.
414. Galadanci N, Abdullahi SU, Vance LD, Tabari AM, Ali S, Belonwu R, Salihu A, Galadanci AA, Jibir BW, Bello-Manga H, Neville K, Kirkham FJ, **Shyr Y**, Phillips S, Covert BV, Kassim AA, Jordan LC, Aliyu MH, DeBaun MR. Feasibility trial for primary stroke prevention in children with sickle cell anemia in Nigeria (SPIN Trial). *Am J Hematol* 2017;92(8):780-788.
415. Giltane JM, Hutchinson KE, Stricker TP, Formisano L, Young CD, Estrada MV, Nixon MJ, Du L, Sanchez V, Ericsson PG, Kuba MG, Sanders ME, Mu XJ, Van Allen EM, Wagle N, Mayer IA, Abramson V, Gómez H, Rizzo M, Toy W, Chandarlapaty S, Mayer EL, Christiansen J, Murphy D, Fitzgerald K, Wang K, Ross JS, Miller VA, Stephens PJ, Yelensky R, Garraway L, **Shyr Y**, Meszoely I, Balko JM, Arteaga CL. Genomic profiling of ER+ breast cancers after short-term estrogen suppression reveals alterations associated with endocrine resistance. *Sci Transl Med* 2017; 9(402):pii:eaai7993.
416. Guise NB, Koonce TY, Kusnoor SV, Prather AA, Gottlieb LM, Huang LC, Phillips SE, **Shyr Y**, Adler NE, Stead WW. Institute of medicine measures of social and behavioral determinants of health: A feasibility study. *Am J Prev Med* 2017;52(2):199-206.

417. Guo Y, Dai Y, Yu H, Zhao S, Samuels DC, **Shyr Y**. Improvements and impacts of GRCh38 human reference on high throughput sequencing data analysis. *Genomics* 2017; 109(2):83-90.
418. Guo Y, Sheng Q, Samuels DC, Lehmann B, Bauer JA, Pietenpol J, **Shyr Y**. Corrigendum to "Comparative study of exome copy number variation estimation tools using array comparative genomic hybridization as control." *Biomed Res Int* 2017;7409598. PMID: PMC5540237.
419. Jovanovic B, Mayer IA, Mayer EL, Abramson VG, Bardia A, Sanders M, Kuba MG, Estrada MV, Beeler JS, Shaver TM, Johnson KN, Sanchez V, Rosenbluth JM, Dillon PM, Ferrero-Torres A, Chang JC, Meszoely I, Grau A, Lehmann BD, **Shyr Y**, Sheng Q, Chen SC, Arteaga CL, Pietenpol JA. A randomized phase II neoadjuvant study of cisplatin, paclitaxel with or without everolimus in patients with stage II/III triple-negative breast cancer (TNBC). *Clin Cancer Res* 2017. PMID: PMC5540799.
420. Li CI, Samuels DC, Zhao YY, **Shyr Y**, Guo Y. Power and sample size calculations for high-throughput sequencing-based experiments. *Brief Bioinform* 2018;19(6):1247-1255. doi:10.1093/bib/bbx061. PMID: 28605403; PMID: PMC6291796.
421. Liu Q, Wang J, Zhao Y, Li CI, Stengel KR, Acharya P, Johnston G, Hiebert SW, **Shyr Y**. Identification of active miRNA promoters from nuclear run-on RNA sequencing. *Nucleic Acids Res* 2017;45:13. PMID:28460090.
422. Peng D, Guo Y, Chen H, Zhao S, Washington K, Hu T, **Shyr Y**, El-Rifai W. Integrated molecular analysis reveals complex interactions between genomic and epigenomic alterations in esophageal adenocarcinomas. *Scientific Reports* 2017;7:40729.
423. Schulte ML, Hight MR, Ayers GD, Liu Q, **Shyr Y**, Washington MK, Manning HC. Non-invasive glutamine PET reflects pharmacological inhibition of BRAFV600E in vivo. *Mol Imaging Biol* 2017;19(3):421-428. PMID: 27770401.
424. Esbenshade AJ, Zhao Z, Aftandilian C, Saab R, Wattier RL, Beauchemin M, Miller TP, Wilkes JJ, Kelly MJ, Fernbach A, Jeng M, Schwartz CL, Dvorak CC, **Shyr Y**, Moons KGM, Sulis ML, Friedman DL. Multisite external validation of a risk prediction model for the diagnosis of blood stream infection in febrile pediatric oncology patients without severe neutropenia. *Cancer* 2017;123(19):3781-3790. doi:10.1002/cncr.30792. Epub 2017 May 23. PMID: 28542918; PMID: PMC5610619.
425. Su PF, Mau YL, Guo Y, Li CI, Liu Q, Boice JD, **Shyr Y**. Bivariate Poisson models with varying offsets: an application to the paired mitochondrial DNA dataset. *Stat Appl Genet Mol Biol* 2017;16(1):47-58.
426. Thomas, CR Jr, **Shyr Y**. Determining penetration of prostate-specific antigen screening recommendations. *Jama Oncol* 2017;3(5):707.
427. Tu C, Shen S, Sheng Q, **Shyr Y**, Qu J. A peptide-retrieval strategy enables significant improvement of quantitative performance without compromising confidence of identification. *J Proteomics* 2017;152:276-282.
428. Vlacich G, Stavas MJ, Pendyala P, Chen SC, **Shyr Y**, Cmelak AJ. A comparative analysis between sequential boost and integrated boost intensity-modulated radiation therapy with concurrent chemotherapy for locally-advanced head and neck cancer. *Radiat Oncol* 2017;12(1):13. PMID: PMC5237132.
429. Wang YA, Sun Y, Palmer JD, Solomides C, Huang LC, **Shyr Y**, Dicker AP, Lu B. IGFBP3 Modulates Lung Tumorigenesis and Cell Growth through IGF1 Signaling. *Mol Cancer Res* 2017;15(7):896-904.
430. Zhang P, Lehmann BD, Samuels DC, Zhao S, Zhao YY, **Shyr Y**, Guo Y. Estimating relative mitochondrial DNA copy number using high throughput sequencing data. *Genomics* 2017;109(5-6):457-462. doi: 10.1016/j.ygeno.2017.07.002. Epub 2017 Jul 19. PMID: 28734953.
431. Zhang P, Lehmann BD, **Shyr Y**, Guo Y. The utilization of formalin fixed-paraffin-embedded specimens in high throughput genomic studies. *Int J Genomics* 2017;2017:1926304. PMID: 5299160.
432. Zhao S, Jing W, Samuels DC, Sheng Q, **Shyr Y**, Guo Y. Strategies for processing and quality control of Illumina genotyping arrays. *Brief Bioinform* 2017. 2018 Sep 28;19(5):765-775. doi: 10.1093/bib/bbx012. PMID: 28334151; PMID: PMC6171493.
433. Wang J, Samuels DC, **Shyr Y**, Guo Y. StrandScript: Evaluation of Illumina genotyping array design and strand correction. *Bioinformatics* 2017;33(15):2399-2401. PMID: 28402386.

434. Galadanci NA, Umar Abdullahi S, Vance LD, Musa Tabari A, Ali S, Belonwu R, Salihu A, Amal Galadanci A, Wudil Jibir B, Bello-Manga H, Neville K, Kirkham FJ, **Shyr Y**, Phillips S, Covert BV, Kassim AA, Jordan LC, Aliyu MH, DeBaun MR. Feasibility trial for primary stroke prevention in children with sickle cell anemia in Nigeria (SPIN Trial). *Am J Hematol* 2017;92(8):780-788. PMID: 28539953.
435. Liu Q, Wang J, Zhao Y, Li Cl, Stengel KR, Acharya P, Johnston G, Hiebert SW, **Shyr Y**. Identification of active miRNA promoters from nuclear run-on RNA sequencing. *Nucleic Acids Res* 2017;45(13):e121. PMID: 28460090.
436. Esbenshade AJ, Zhao Z, Aftandilian C, Saab R, Wattier RL, Beauchemin M, Miller TP, Wilkes JJ, Kelly MJ, Fernbach A, Jeng M, Schwartz CL, Dvorak CC, **Shyr Y**, Moons KGM, Sulis ML, Friedman DL. Multisite external validation of a risk prediction model for the diagnosis of blood stream infections in febrile pediatric oncology patients without severe neutropenia. *Cancer* 2017;123(19):3781-3790. PMID: 28542918.
437. Li Cl, Samuels DC, Zhao YY, **Shyr Y**, Guo Y. Power and sample size calculations for high-throughput sequencing-based experiments. *Brief Bioinform* 2018;19(6):1247-1255. doi:10.1093/bib/bbx061. PMID: 28605403; PMCID: PMC6291796.
438. Zhang P, Lehmann BD, Samuels DC, Zhao S, Zhao YY, **Shyr Y**, Guo Y. Estimating relative mitochondrial DNA copy number using high throughput sequencing data. *Genomics* 2017; 109(5-6). PMID: 28734953.
439. Giltneane JM, Hutchinson KE, Stricker TP, Formisano L, Young CD, Estrada MV, Nixon MJ, Du L, Sanchez V, Ericsson PG, Kuba MG, Sanders ME, Mu XJ, Van Allen EM, Wagle N, Mayer IA, Abramson V, Gómez H, Rizzo M, Toy W, Chandarlapaty S, Mayer EL, Christiansen J, Murphy D, Fitzgerald K, Wang K, Ross JS, Miller VA, Stephens PJ, Yelensky R, Garraway L, **Shyr Y**, Meszoely I, Balko JM, Arteaga CL. Genomic profiling of ER+ breast cancers after short-term estrogen suppression reveals alterations associated with endocrine resistance. *Sci Transl Med* 2017; 9(402). PMID: 28734953.
440. Guo Y, Zhao S, Sheng Q, Samuels DC, **Shyr Y**. The discrepancy among single nucleotide variants detected by DNA and RNA high throughput sequencing data. *BMC Genomics* 2017;18(Suppl6):690. PMID: 28984205.
441. Sun HC, Xie L, Yang XR, Li W, Yu J, Zhu XD, Xia Y, Zhang T, Xu Y, Hu B, Du LP, Zeng LY, Ouyang J, Zhang W, Song TQ, Li Q, Shi YH, Zhou J, Qiu SJ, Liu Q, Li YX, Tang ZY, **Shyr Y**, Shen F, Fan J. Shanghai score: a prognostic and adjuvant treatment-evaluating system constructed for chinese patients with hepatocellular carcinoma after curative resection. *Chin Med J* 2017;130(22):2650-2660. PMID: 291133751.
442. Almodovar K, Iams WT, Meador CB, Zhao Z, York S, Horn L, Yan Y, Hernandez J, Chen H, **Shyr Y**, Lim LP, Raymond CK, Lovly CM. Longitudinal cell-free DNA analysis in patients with small cell lung cancer reveals dynamic insights into treatment efficacy and disease relapse. *J Thorac Oncol* 2018;13(1):112-123. PMID: 28951314.
443. Aisner DL, Sholl LM, Berry LD, Rossi MR, Chen H, Fujimoto J, Moreira AL, Ramalingam SS, Villaruz LC, Otterson GA, Haura E, Politi K, Glisson B, Cetnar J, Garon EB, Schiller J, Waqar SN, Sequist LV, Brahmer J, **Shyr Y**, Kugler K, Wistuba II, Johnson BE, Minna JD, Kris MG, Bunn PA, Kwiatkowski DJ; LCMC2 investigators. The impact of smoking and TP53 mutations in lung adenocarcinoma patients with targetable mutations – The Lung Cancer Mutation Consortium (LCMC2). *Clin Cancer Res* 2018;24(5): 1038-1047. PMID: 29217530.
444. Ma D, Tu C, Sheng Q, Yang Y, Kan Z, Guo Y, **Shyr Y**, Scott IC, Lou X. Dynamics of zebrafish heart regeneration using an HPLC-ESI-MS/MS approach. *J Proteome Res* 2018;17(3):1300-1308. PMID: 29369637.
445. Galadanci NA, Umar Abdullahi S, Vance LD, Musa Tabari A, Ali S, Belonwu R, Salihu A, Amal Galadanci A, Wudil Jibir B, Bello-Manga H, Neville K, Kirkham FJ, **Shyr Y**, Phillips S, Covert BV, Kassim AA, Jordan LC, Aliyu MH, DeBaun MR. Feasibility trial for primary stroke prevention in children with sickle cell anemia in Nigeria (SPIN Trial). *Am J Hematol* 2018;93(3):E83. PMID: 29411418.
446. Greenplate A, Wang K, Tripathy RM, Palma N, Ali SM, Stephenson PJ, Miller VA, **Shyr Y**, Guo Y, Reddy NM, Kozhaya L, Unutmaz D, Chen X, Irish JM, Dave UP. Genomic profiling of T-cell neoplasms reveals frequent *JAK1* and *JAK3* mutations with clonal evasion from targeted therapies. *JCO Precision Oncology* 2018 [online]. PMID: 30079384.

447. Gelbard A, **Shyr Y**, Berry L, Hillel AT, Ekblom DC, Edell ES, Kasperbauer JL, Lott DG, Donovan DT, Garrett CG, Sandhu G, Daniero JJ, Netterville JL, Schindler JS, Smith ME, Bryson PC, Lorenz RR, Francis DO. Treatment options in idiopathic subglottic stenosis: Protocol for a prospective international multicenter pragmatic trial. *BMJ Open* 2018;8(4):e022243. PMID: 29643170.
448. Ye F, Sheng Q, Feurer ID, Zhao Z, Fan R, Teng J, Rega SA, Hanto DW, **Shyr Y**, Karp SJ. Directed solutions to address differences in access to liver transplantation. *Am J Transplant* 2018;18(11):2670-2678. PMID: 29689125.
449. Zhao S, Li CI, Guo Y, Sheng Q, **Shyr Y**. RNASeqSampleSize: real data based sample size estimation for RNA sequencing. *BMC Bioinformatics* 2018;19(1):191. PMID: 29843589.
450. Allen RM, Zhao S, Ramirez Solano MA, Zhu W, Michell DL, Wang Y, **Shyr Y**, Sethupathy P, Linton MF, Graf GA, Sheng Q, Vickers KC. Bioinformatic analysis of endogenous and exogenous small RNAs on lipoproteins. *J Extracell Vesicles* 2018;7(1):1506198. PMID: 30128086.
451. Iams WT, Yu H, **Shyr Y**, Patil T, Horn L, McCoach C, Kelly K, Doebele RC, Camidge DR. First-line chemotherapy responsiveness and patterns of metastatic spread identify clinical syndromes present within advanced KRAS mutant non-small-cell lung cancer with different prognostic significance. *Clin Lung Cancer* 2018. PMID: 30197261.
452. Wang J, Zhao Y, Zhou X, Hiebiert SW, Liu Qi, & **Shyr Y**. Nascent RNA sequencing analysis provides insights into enhancer-mediated gene regulation. *BMC Genomics* 2018;19(1):633. PMID: 30139328.
453. Wang J, Dai X, Berry LD, Cogan JD, Liu Q, **Shyr Y**. HACER: An atlas of human active enhancers to interpret regulatory variants. *Nucleic Acids Res* 2018;47(D1):D106-D112. PMID: PMC6323890.
454. Laroumanie F, Korneva A, Bersi MR, Alexander MR, Xiao L, Zhong X, Van Beusecum JP, Chen Y, Saleh MA, McMaster WG, Gavulic KA, Dale BL, Zhao S, Guo Y, **Shyr Y**, Perrien DS, Cox NJ, Curci JA, Humphrey JD, Madhur MS. LNK deficiency promotes acute aortic dissection and rupture. *JCI Insight* 2018;3(20):e122558. PMID: PMC6237478.
455. Liu Q, Herring CA, Sheng Q, Ping J, Simmons AJ, Chen B, Baberjee A, Li W, Gu G, Coffey RJ, **Shyr Y**, Lau KS. Quantitative assessment of cell population diversity in single-cell landscapes. *PLOS Biology* 2018;16(10):e2006687. PMID: PMC6211764.
456. Liu B, **Shyr Y**, Cai J, Liu Q. Interplay between miRNAs and host genes and their role in cancer. *Brief Funct Genomics* 2018;18(4):255-266. doi:10.1093/bfgp/elz002. PMID: 30785618; PMID: PMC6609535.
457. Hemnes AR, Luther JM, Rhodes CJ, Burgess JP, Carlson J, Fan R, Fessel JP, Fortune N, Gerszten RE, Halliday SJ, Hekmat R, Howard L, Newman JH, Niswender KD, Pugh ME, Robbins IM, Sheng Q, Shibao CA, **Shyr Y**, Sumner S, Talati M, Wharton J, Wilkins MR, Ye F, Yu C, West J, Brittain EL. Human PAH is characterized by a pattern of lipid-related insulin resistance. *JCI Insight* 2019;4(1):e123611. doi: 10.1172/jci.insight.123611. PMID: 30626738; PMID: PMC6485674.
458. Blum AE, Venkitachalam S, Ravillah D, Chelluboyina AK, Kieber-Emmons AM, Ravi L, Kresak A, Chandar AK, Markowitz SD, Canto MI, Wang JS, Shaheen NJ, Guo Y, **Shyr Y**, Willis JE, Chak A, Varadan V, Guda K. Systems biology analyses reveal hyperactivation of transforming growth factor beta and JNK signaling pathways in esophageal cancer. *Gastroenterology* 2019;156(6):1761-1774.
459. Yu H, Wang J, Sheng Q, Liu Q, **Shyr Y**. beRBP: binding estimation for human RNA-binding proteins. *Nucleic Acids Res* 2019;47(5):e26. doi:10.1093/nar/gky1294. PMID: 30590704; PMID: PMC6411931.
460. Sweeting RS, Du L, **Shyr Y**, Hooks MA. Income, costs, and health care utilization may influence surgical choice in early stage breast cancer. *Breast J* 2019;25(2):334-337. PMID: 30803098.
461. Feld E, Singhi EK, Phillips S, Huang LC, **Shyr Y**, Horn L. Palliative care referrals for advanced non-small-cell lung cancer (NSCLC): patient and provider attitudes and practices. *Clinical Lung Cancer* 2019;20(3):e291-e298.
462. Formisano L, Lu Y, Servetto A, Hanker AB, Jansen VM, Bauer JA, Sudhan DR, Guerrero-Zotano AL, Croessmann S, Guo Y, Ericsson PG, Lee KM, Nixon MJ, Schwarz LJ, Sanders ME, Dugger TC, Cruz MR, Behdad A, Cristofanilli M, Bardia A, O'Shaughnessy J, Nagy RJ, Lanman RB, Solovieff N, He W, Miller M, Su F, **Shyr Y**, Mayer IA, Balko JM, Arteaga CL. Aberrant FGFR signaling mediates resistance to CDK4/6 inhibitors in ER+ breast cancer. *Nature Communications* 2019;10(1):1373. PMID: 30914635.

463. Lehmann BD, Shaver TM, Johnson DB, Li Z, Gonzalez-Ericsson PI, Sanchez V, **Shyr Y**, Sanders ME, Pietenpol JA. Identification of targetable recurrent MAP3K8 rearrangements in melanomas lacking known driver mutations. *Molecular Cancer Research* 2019;17(9):1842-1853.
464. Cunningham I, Hamele-Bena D, Guo Y, Shiomi T, Papp AC, Chakvarti B, Yang J, **Shyr Y**, Fisher RA. Extramedullary leukemia behaving as solid cancer: Clinical, histologic, and genetic clues to chemoresistance in organ sites. *Am J Hematol* 2019;94(11):1200-1207.
465. Wood M, George TJ, Manochakian R, Polansky M, Baer A, Grupe A, **Shyr Y**, Wang C, Horn L. Quantitative assessment of learning behaviors for oncology providers. *J Cancer Educ* 2021;36(1):25-32. doi:10.1007/s13187-019-01593-4. Epub 2019 Aug 3. PMID: 31377987.
466. Liu Q, Sheng Q, Ping J, Ramirez MA, Lau KS, Coffey RJ, **Shyr Y**. scRNABatchQC: Multi-samples quality control for single cell RNA-seq data. *Bioinformatics* 2019;35(24):5306–5308.
467. Gelbard A, Anderson C, Berry LD, Amin MR, Benninger MS, Blumin JH, Bock JM, Bryson PC, Castellanos PF, Chen SC, Clary MS, Cohen SM, Crawley BK, Dailey SH, Daniero JJ, de Alarcon A, Donovan DT, Edell ES, Ekbohm DC, Fernandes-Taylor S, Fink DS, Franco RA, Garrett CG, Guardiani EA, Hillel AT, Hoffman HT, Hogikyan ND, Howell RJ, Huang LC, Hussain LK, Johns MM 3rd, Kasperbauer JL, Khosla SM, Kinnard C, Kupfer RA, Langerman AJ, Lentz RJ, Lorenz RR, Lott DG, Lowery AS, Makani SS, Maldonado F, Mannion K, Matrka L, McWhorter AJ, Merati AL, Mori MC, Netterville JL, O'Dell K, Ongkasuwan J, Postma GN, Reder LS, Rohde SL, Richardson BE, Rickman OB, Rosen CA, Rutter MJ, Sandhu GS, Schindler JS, Schneider GT, Shah RN, Sikora AG, Sinard RJ, Smith ME, Smith LJ, Soliman AMS, Sveinsdóttir S, Van Daele DJ, Veivers D, Verma SP, Weinberger PM, Weissbrod PA, Wootten CT, **Shyr Y**, Francis DO. Comparative treatment outcomes for patients with idiopathic subglottic stenosis. *JAMA Otolaryngol Head Neck Surg* 2019;146(1):1-10. doi:10.1001/jamaoto.2019.3022. PMID: 31670805; PMCID: PMC6824232.
468. Manochakian R, George TJ, Wood M, Polansky M, Baer A, Grupe A, **Shyr Y**, Wang C, Horn L. Establishing and evaluating an ASCO learning cohort: A longitudinal project assessing the learning needs and behaviors of oncology professionals. *J Cancer Educ* 2021;36(3):478-483. doi:10.1007/s13187-019-01649-5. PMID: 31741200.
469. Teng J, Abdygametova A, Du J, Ma B, Zhou R, **Shyr Y**, Ye F. Bayesian inference of lymph node ratio estimation and survival prognosis for breast cancer patients. *IEEE J Biomed Health Inform* 2020;24(2):354-364. doi:10.1109/JBHI.2019.2943401. Epub 2019 Sep 24. PMID: 31562112.
470. Lehmann BD, Abramson VG, Sanders ME, Mayer EL, Haddad TC, Nanda R, Van Poznak C, Storniolo AM, Nangia JR, Gonzalez-Ericsson PI, Sanchez V, Johnson KN, Abramson RG, Chen SC, **Shyr Y**, Arteaga CL, Wolff AC, Pietenpol JA; Translational Breast Cancer Research Consortium. TBCRC 032 IB/II multicenter study: Molecular insights to AR antagonist and PI3K inhibitor efficacy in patients with AR+ metastatic triple-negative breast cancer. *Clin Cancer Res* 2020;26(9):2111-2123. doi:10.1158/1078-0432.CCR-19-2170. Epub 2019 Dec 10. PMID: 31822498; PMCID: PMC7196503.
471. Lai CH, Huang LC, Holby SN, Lai YJ, Su PF, Cheng YS, **Shyr Y**, Hsi RS. Kidney stone history and adverse outcomes after percutaneous coronary intervention. *Urology* 2020;136:75-81. doi:10.1016/j.urology.2019.10.009. Epub 2019 Nov 4. PMID: 31697954; PMCID: PMC7008077.
472. Das S, Ciombor KK, Haraldsdottir S, Pumpalova Y, Sahin IH, Pineda G, **Shyr Y**, Lin EP, Hsu CY, Chu SK, Goff LW, Cardin DB, Bilen MA, Fisher GA, Wu C, Berlin J. Immune-related adverse events and immune checkpoint inhibitor efficacy in patients with gastrointestinal cancer with Food and Drug Administration-approved indications for immunotherapy. *Oncologist* 2020;25(8):669-679. doi:10.1634/theoncologist.2019-0637. PMID: 31943525. PMCID: PMC7418359.
473. George TJ, Manochakian R, Wood M, Polansky M, Baer A, Grupe A, **Shyr Y**, Wang C, Williams J, Horn L. Quantitative analysis of oncology professional learning preferences. *JCO Oncol Pract* 2020;16(2):e155-e165. doi: 10.1200/JOP.18.00731. Epub 2020 Jan 7. PMID: 32045553.
474. Schafer JM, Lehmann BD, Gonzalez-Ericsson PI, Marshall CB, Beeler JS, Redman LN, Jin H, Sanchez V, Stubbs MC, Scherle P, Johnson KN, Sheng Q, Roland JT, Bauer JA, **Shyr Y**, Chakravarthy B, Mobley BC, Hiebert SW, Balko JM, Sanders ME, Liu PCC, Pietenpol JA. Targeting MYCN-expressing triple-negative breast cancer with BET and MEK inhibitors. *Sci Transl Med* 2020;12(534):eaaw8275. doi:10.1126/scitranslmed.aaw8275. PMID: 32161105.

475. Wang M, Lin EP, Huang LC, Li CY, **Shyr Y**, Lai CH. Mortality of cardiovascular events in patients with COPD and preceding hospitalization for acute exacerbation. *Chest* 2020;158(3):973-985. doi:10.1016/j.chest.2020.02.046. Epub 2020 Mar 14. PMID: 32184108.
476. Kuderer NM*, Choueiri TK*, Shah DP*, **Shyr Y***, Rubinstein SM, Rivera DR, Shete S, Hsu CY, Desai A, de Lima Lopes G Jr, Grivas P, Painter CA, Peters S, Thompson MA, Bakouny Z, Batist G, Bekaii-Saab T, Bilen MA, Bouganim N, Larroya MB, Castellano D, Del Prete SA, Doroshov DB, Egan PC, Elkrief A, Farmakiotis D, Flora D, Galsky MD, Glover MJ, Griffiths EA, Gulati AP, Gupta S, Hafez N, Halfdanarson TR, Hawley JE, Hsu E, Kasi A, Khaki AR, Lemmon CA, Lewis C, Logan B, Masters T, McKay RR, Mesa RA, Morgans AK, Mulcahy MF, Panagiotou OA, Peddi P, Pennell NA, Reynolds K, Rosen LR, Rosovsky R, Salazar M, Schmidt A, Shah SA, Shaya JA, Steinharter J, Stockerl-Goldstein KE, Subbiah S, Vinh DC, Wehbe FH, Weissmann LB, Wu JT, Wulff-Burchfield E, Xie Z, Yeh A, Yu PP, Zhou AY, Zubiri L, Mishra S, Lyman GH, Rini BI, Warner JL; COVID-19 and Cancer Consortium. Clinical impact of COVID-19 on patients with cancer (CCC19): A cohort study. *Lancet* 2020;395(10241):1907-1918. doi:10.1016/S0140-6736(20)31187-9. Epub 2020 May 28. PMID: 32473681; PMCID: PMC7255743. *co-first authors
477. Lai CH, Hsieh CY, Barnado A, Huang LC, Chen SC, Tsai LM, **Shyr Y**, Li CY. Outcomes of acute cardiovascular events in rheumatoid arthritis and systemic lupus erythematosus: A population-based study. *Rheumatology (Oxford)* 2020;59(6):1355-1363. doi:10.1093/rheumatology/kez456. PMID: 31600392.
478. Price* CC, Altice* FL, **Shyr Y***, Koff A, Pischel L, Goshua G, Azar MM, Mcmanus D, Chen SC, Gleeson SE, Britto CJ, Azmy V, Kaman K, Gaston DC, Davis M, Burrello T, Harris Z, Villanueva MS, Aoun-Barakat L, Kang I, Seropian S, Chupp G, Bucala R, Kaminski N, Lee AI, LoRusso PM, Topal JE, Dela Cruz C, Malinis M. Tocilizumab treatment for cytokine release syndrome in hospitalized COVID-19 patients: survival and clinical outcomes. *Chest* 2020;158(4):1397-1408. doi:10.1016/j.chest.2020.06.006. Epub 2020 Jun 15. PMID: 32553536; PMCID: PMC7831876.
479. Rivera DR, Peters S, Panagiotou OA, Shah DP, Kuderer NM, Hsu CY, Rubinstein SM, Lee BJ, Choueiri TK, de Lima Lopes G, Grivas P, Painter CA, Rini BI, Thompson MA, Arcobello J, Bakouny Z, Doroshov DB, Egan PC, Farmakiotis D, Fecher LA, Friese CR, Galsky MD, Goel S, Gupta S, Halfdanarson TR, Halmos B, Hawley JE, Khaki AR, Lemmon CA, Mishra S, Olszewski AJ, Pennell NA, Puc MM, Revankar SG, Schapira L, Schmidt A, Schwartz GK, Shah SA, Wu JT, Xie Z, Yeh AC, Zhu H, **Shyr Y***, Lyman GH*, Warner JL*. Utilization of COVID-19 treatments and clinical outcomes among patients with cancer: A COVID-19 and Cancer Consortium (CCC19) cohort study. *Cancer Discov* 2020;CD-20-0941. doi:10.1158/2159-8290.CD-20-0941. PMID: 32699031. *co-senior authors
480. **Shyr Y**, Shyr D. What constitutes a valid surrogate end point in cancer clinical trials? *JAMA Oncol* 2020 Jul 23. doi: 10.1001/jamaoncol.2020.1847. Epub ahead of print. PMID: 32701117.
481. Li C, Sun YD, Yu GY, Cui JR, Lou Z, Zhang H, Huang Y, Bai CG, Deng LL, Liu P, Zheng K, Wang YH, Wang QQ, Li QR, Wu QQ, Liu Q, **Shyr Y**, Li YX, Chen LN, Wu JR, Zhang W, Zeng R. Integrated omics of metastatic colorectal cancer. *Cancer Cell* 2020; 38(5):734-747.e9. doi:10.1016/j.ccell.2020.08.002. Epub 2020 Sep 3. PMID: 32888432.
482. Strayer N, Shirey-Rice JK, **Shyr Y**, Denny JC, Pulley JM, Xu Y. PheWAS-ME: A web-app for interactive exploration of multimorbidity patterns in PheWAS. *Bioinformatics* 2021;37(12):1778-1780. doi:10.1093/bioinformatics/btaa870. PMID: 33051675; PMCID: PMC8487628.
483. The COVID-19 and Cancer Consortium. A systematic framework to rapidly obtain data on patients with cancer and COVID-19: CCC19 governance, protocol, and quality assurance. *Cancer Cell* 2020;S1535-6108(20)30553-5. doi:10.1016/j.ccell.2020.10.022. PMID: 33176160; PMCID: PMC7598547.
484. Alvarado-Cruz I, Mahmoud M, Khan M, Zhao S, Oeck S, Meas R, Clairmont K, Quintana V, Zhu Y, Porciuncula A, Wyatt H, Ma S, **Shyr Y**, Kong Y, LoRusso PM, Lavery D, Nagel ZD, Schalper KA, Krauthammer M, Sweasy JB. Differential immunomodulatory effect of PARPiInhibition in BRCA1 deficient and competent tumor cells. *Biochem Pharmacol* 2020;114359. doi: 10.1016/j.bcp.2020.114359. Epub ahead of print. PMID: 33285109.
485. **Shyr Y**, Berry LD, Hsu CY. Scientific rigor in the age of COVID-19. *JAMA Oncol* 2021;7(2):171-172. doi:10.1001/jamaoncol.2020.6639. PMID: 33300984.

486. Shyr D, **Shyr Y**. The design and analysis of non-randomized studies: A case study of off-label use of hydroxychloroquine in the COVID-19 pandemic. *Expert Opin Investig Drugs*. 2020 Dec 29:1-7. doi:10.1080/13543784.2021.1868435. Epub ahead of print. PMID: 33353432.
487. Ou FS, Michiels S, **Shyr Y**, Adjei AA, Oberg AL. Biomarker discovery and validation: Statistical considerations. *J Thorac Oncol* 2021;S1556-0864(21)01663-4. doi:10.1016/j.jtho.2021.01.1616. Epub ahead of print. PMID: 33545385.
488. Osarogiagbon RU, Smeltzer MP, Faris NR, Ray MA, Fehnel C, Ojeabulu P, Akinbobola O, Meadows-Taylor M, McHugh LM, Halal AM, Levy P, Sachdev V, Talton R, Wiggins L, Shu XO, **Shyr Y**, Robbins ET, Klesges LM. Outcomes following use of a lymph node collection kit for lung cancer surgery: A pragmatic, population-based, multi-institutional, staggered implementation study. *J Thorac Oncol* 2021;16(4):630-642. doi:10.1016/j.jtho.2020.12.025. Epub 2021 Feb 16. PMID: 33607311; PMCID: PMC8012255.
489. Lee J, Huang LC, Berry LD, Anderson C, Amin MR, Benninger MS, Blumin JH, Bock JM, Bryson PC, Castellanos PF, Chen SC, Clary MS, Cohen SM, Crawley BK, Dailey SH, Daniero JJ, de Alarcon A, Donovan DT, Edell ES, Ekbohm DC, Fink DS, Franco RA, Garrett CG, Guardiani EA, Hillel AT, Hoffman HT, Hogikyan ND, Howell RJ, Hussain LK, Johns MM, Kasperbauer JL, Khosla SM, Kinnard C, Kupfer RA, Langerman AJ, Lentz RJ, Lorenz RR, Lott DG, Lowery AS, Makani SS, Maldonado F, Mannion K, Matrkka L, McWhorter AJ, Merati AL, Mori M, Netterville JL, O'Dell K, Ongkasuwan J, Postma GN, Reder LS, Rohde SL, Richardson BE, Rickman OB, Rosen CA, Rutter MJ, Sandhu GS, Schindler JS, Schneider GT, Shah RN, Sikora AG, Sinard RJ, Smith ME, Smith LJ, Soliman AMS, Sveinsdóttir S, Van Daele DJ, Veivers D, Verma SP, Weinberger PM, Weissbrod PA, Wootten CT, **Shyr Y**, Francis DO, Gelbard A. Association of social determinants of health with time to diagnosis and treatment outcomes in idiopathic subglottic stenosis. *Ann Otol Rhinol Laryngol* 2021;130(10):1116-1124. doi:10.1177/0003489421995283. Epub 2021 Feb 25. PMID: 33629608; PMCID: PMC8762607.
490. Kim J, Cardin D, Vaishampayan U, Kato S, Grossman S, Glazer P, **Shyr Y**, Ivy S, LoRusso P. Clinical activity and safety of cediranib and olaparib combination in patients with metastatic pancreatic ductal adenocarcinoma without BRCA mutation. *Oncologist* 2021;26(7):e1104-e1109. doi:10.1002/onco.13758. Epub 2021 May 5. PMID: 33742489; PMCID: PMC8265343.
491. Grivas P, Khaki AR, Wise-Draper TM, French B, Hennessy C, Hsu CY, **Shyr Y**, Li X, Choueiri TK, Painter CA, Peters S, Rini BI, Thompson MA, Mishra S, Rivera DR, Acoba JD, Abidi MZ, Bakouny Z, Bashir B, Bekaii-Saab T, Berg S, Bernicker EH, Bilan MA, Bindal P, Bishnoi R, Bouganim N, Bowles DW, Cabal A, Caimi PF, Chism DD, Crowell J, Curran C, Desai A, Dixon B, Doroshow DB, Durbin EB, Elkrief A, Farmakiotis D, Fazio A, Fecher LA, Flora DB, Friese CR, Fu J, Gadgeel SM, Galsky MD, Gill DM, Glover MJ, Goyal S, Grover P, Gulati S, Gupta S, Halabi S, Halfdanarson TR, Halmos B, Hausrath DJ, Hawley JE, Hsu E, Huynh-Le M, Hwang C, Jani C, Jayaraj A, Johnson DB, Kasi A, Khan H, Koshkin VS, Kuderer NM, Kwon DH, Lammers PE, Li A, Loaiza-Bonilla A, Low CA, Lustberg MB, Lyman GH, McKay RR, McNair C, Menon H, Mesa RA, Mico V, Mundt D, Nagaraj G, Nakasone ES, Nakayama J, Nizam A, Nock NL, Park C, Patel JM, Patel KG, Peddi P, Pennell NA, Piper-Vallillo AJ, Puc M, Ravindranathan D, Reeves ME, Reuben DY, Rosenstein L, Rosovsky RP, Rubinstein SM, Salazar M, Schmidt AL, Schwartz GK, Shah MR, Shah SA, Shah C, Shaya JA, Singh SRK, Smits M, Stockerl-Goldstein KE, Stover DG, Streckfuss M, Subbiah S, Tachiki L, Tadesse E, Thakkar A, Tucker MD, Verma AK, Vinh DC, Weiss M, Wu JT, Wulff-Burchfield E, Xie Z, Yu PP, Zhang T, Zhou AY, Zhu H, Zubiri L, Shah DP, Warner JL, Lopes GD Jr. Association of clinical factors and recent anti-cancer therapy with covid-19 severity among patients with cancer: A report from the COVID-19 and Cancer Consortium. *Ann Oncol* 2021;S0923-7534(21)00874-7. doi:10.1016/j.annonc.2021.02.024. Epub ahead of print. PMID: 33746047; PMCID: PMC7972830.
492. Hsu CY, Lin EP, **Shyr Y**. Development and evaluation of a method to correct misinterpretation of clinical trial results with long-term survival. *JAMA Oncol* 2021 Apr 15. doi: 10.1001/jamaoncol.2021.0289. Epub ahead of print. PMID: 33856410.
493. Fang WB, Sofia Acevedo D, Smart C, Zinda B, Alissa N, Warren K, Fraga G, Huang LC, **Shyr Y**, Li W, Xie L, Staggs V, Hong Y, Behbod F, Cheng N. Expression of CCL2/CCR2 signaling proteins in breast carcinoma cells is associated with invasive progression. *Sci Rep* 2021;11(1):8708. doi:10.1038/s41598-021-88229-0. PMID: 33888841.

494. Guo Y, Yu H, Song H, He J, Oyebamiji O, Kang H, Ping J, Ness S, **Shyr Y**, Ye F. MetaGSCA: A tool for meta-analysis of gene set differential coexpression. *PLoS Comput Biol* 2021;17(5):e1008976. doi: 10.1371/journal.pcbi.1008976. Epub ahead of print. PMID: 33945541.
495. Yang J, Zhao S, Wang J, Sheng Q, Liu Q, **Shyr Y**. Immu-Mela: An open resource for exploring immunotherapy-related multidimensional genomic profiles in melanoma. *J Genet Genomics* 2021;40(5):361-368. doi:10.1016/j.jgg.2021.03.016. PMID: 34127402.
496. Wilfong EM, Lovly CM, Gillaspie EA, Huang LC, **Shyr Y**, Casey JD, Rini BI, Semler MW. Severity of illness scores at presentation predict ICU admission and mortality in COVID-19. *J Emerg Crit Care Med* 2021;5:7. doi:10.21037/jeccm-20-92. Epub 2021 Jan 25. PMID: 34179689; PMCID: PMC8232354.
497. Li A, Kuderer NM, Hsu CY, **Shyr Y**, Warner JL, Shah DP, Kumar V, Shah S, Kulkarni AA, Fu J, Gulati S, Zon RL, Li M, Desai A, Egan PC, Bakouny Z, Kc D, Hwang C, Akpan IJ, McKay RR, Girard J, Schmidt AL, Halmos B, Thompson MA, Patel JM, Pennell NA, Peters S, Elshoury A, de Lima Lopes G, Stover DG, Grivas P, Rini BI, Painter CA, Mishra S, Connors JM, Lyman GH, Rosovsky RP; CCC19 consortium. The CoVID-TE risk assessment model for venous thromboembolism in hospitalized patients with cancer and COVID-19. *J Thromb Haemost* 2021; 19(10):2522-2532. doi:10.1111/jth.15463. Epub 2021 Aug 13. PMID: 34260813; PMCID: PMC8420489.
498. Von Hoff DD, Clark GM, Coltman CA, Disis ML, Eckhardt SG, Ellis LM, Foti M, Garrett-Mayer E, Gonen M, Hidalgo M, Hilsenbeck SG, Littlefield JH, LoRusso PM, Lyerly HK, Meropol NJ, Patel JD, Piantadosi S, Post DA, Regan MM, **Shyr Y**, Tempero MA, Tepper JE, Von Roenn J, Weiner LM, Young DC, Vu NV. A grant-based experiment to train clinical investigators: The AACR/ASCO methods in clinical cancer research workshop. *Clin Cancer Res* 2021;27(20):5472-5481. doi:10.1158/1078-0432.CCR-21-1799. Epub 2021 Jul 26. PMID: 34312215; PMCID: PMC8530870.
499. Chen HC, Wang J, Liu Q, **Shyr Y**. A domain damage index to prioritizing the pathogenicity of missense variants. *Hum Mutat* 2021;42(11):1503-1517. doi:10.1002/humu.24269. Epub 2021 Aug 15. PMID: 34350656.
500. Liu B, **Shyr Y**, Liu Q. Pan-cancer analysis reveals common and specific relationships between intragenic miRNAs and their host genes. *Biomedicines* 2021;9(9):1263. doi:10.3390/biomedicines9091263. PMID: 34572448; PMCID: PMC8471046.
501. Rolfo C, Meshulami N, Russo A, Krammer F, Garcia-Sastre A, Mack PC, Gomez JE, Bhardwaj N, Benyounes A, Sirera R, Moore A, Rohs N, Henschke CI, Yankelevitz D, King J, **Shyr Y**, Bunn PA Jr, Minna JD, Hirsch FR. Lung cancer and SARS-CoV-2 infection: Identifying important knowledge gaps for investigation. *J Thorac Oncol* 2022;17(2):214-227. doi:10.1016/j.jtho.2021.11.001. Epub 2021 Nov 10. PMID: 34774792; PMCID: PMC8579698.
502. Schmidt AL, Tucker MD, Bakouny Z, Labaki C, Hsu CY, **Shyr Y**, Armstrong AJ, Beer TM, Bijjula RR, Bilen MA, Connell CF, Dawsey SJ, Faller B, Gao X, Gartrell BA, Gill D, Gulati S, Halabi S, Hwang C, Joshi M, Khaki AR, Menon H, Morris MJ, Puc M, Russell KB, Shah NJ, Sharifi N, Shaya J, Schweizer MT, Steinharter J, Wulff-Burchfield EM, Xu W, Zhu J, Mishra S, Grivas P, Rini BI, Warner JL, Zhang T, Choueiri TK, Gupta S, McKay RR. Association between androgen deprivation therapy and mortality among patients with prostate cancer and COVID-19. *JAMA Netw Open* 2021;4(11):e2134330. doi:10.1001/jamanetworkopen.2021.34330. PMID: 34767021; PMCID: PMC8590166.
503. Li M, Cai Q, Gao YT, Franke AA, Zhang X, Zhao Y, Wen W, Lan Q, Rothman N, **Shyr Y**, Shu XO, Zheng W, Yang G. Phytoestrogens and lung cancer risk: A nested case-control study in never-smoking Chinese females. *Am J Clin Nutr* 2021:nqab358. doi:10.1093/ajcn/nqab358. Epub ahead of print. PMID: 34673927.
504. Rolfo C, Meshulami N, Russo A, Krammer F, Garcia-Sastre A, Mack PC, Gomez JE, Bhardwaj N, Benyounes A, Sirera R, Moore A, Rohs N, Henschke CI, Yankelevitz D, King J, **Shyr Y**, Bunn PA Jr, Minna JD, Hirsch FR. Lung cancer and severe acute respiratory syndrome Coronavirus 2 infection: Identifying important knowledge gaps for investigation. *J Thorac Oncol* 2022;17(2):214-227. doi:10.1016/j.jtho.2021.11.001. PMID: 34774792; PMCID: PMC8579698.
505. Li J, Sheng Q, **Shyr Y**, Liu Q. scMRMA: Single cell multiresolution marker-based annotation. *Nucleic Acids Res Nucleic Acids Res*. 2022;50(2):e7. doi:10.1093/nar/gkab931

506. Yang J, Zhao S, Wang J, Sheng Q, Liu Q, **Shyr Y**. A pan-cancer immunogenomic atlas for immune checkpoint blockade immunotherapy. *Cancer Res* 2022;82(4):539-542. doi:10.1158/0008-5472.CAN-21-2335. PMID: 34903605.
507. Schmidt AL, Labaki C, Hsu CY, Bakouny Z, Balanchivadze N, Berg SA, Blau S, Daher A, El Zarif T, Friese CR, Griffiths EA, Hawley JE, Hayes-Lattin B, Karivedu V, Latif T, Mavromatis BH, McKay RR, Nagaraj G, Nguyen RH, Panagiotou OA, Portuguese AJ, Puc M, Dutra MS, Schroeder BA, Thakkar A, Wulff-Burchfield EM, Mishra S, Farmakiotis D, **Shyr Y***, Warner JL*, Choueiri TK*; COVID-19 and Cancer Consortium. COVID-19 vaccination and breakthrough infections in patients with cancer. *Ann Oncol* 2022; 33(3):340-346. doi:10.1016/j.annonc.2021.12.006. PMID: 34958894. PMCID: PMC8704021. *co-senior authors
508. Chaft JE, **Shyr Y**, Sepesi B, Forde PM. Preoperative and postoperative systemic therapy for operable non-small-cell lung cancer. *J Clin Oncol* 2022;40(6):546-555. doi:10.1200/JCO.21.01589.
509. Chu SK, Zhao S, **Shyr Y**, Liu Q. Comprehensive evaluation of noise reduction methods for single-cell RNA sequencing data. *Brief Bioinform* 2022;23(2):bbab565. doi:10.1093/bib/bbab565.
510. Zhao Y, Gao YT, Zhang X, Rockwood AL, Kushnir MM, Cai Q, Wu J, Shi J, Lan Q, Rothman N, **Shyr Y**, Shu X, Zheng W, Yang G. Endogenous sex hormones, aromatase activity and lung cancer risk in postmenopausal never-smoking women. *Int J Cancer* 2022;151(5):699-707. doi:10.1002/ijc.34005, Epub 2022 Mar 26.
511. Liu Q, Hsu CY, Li J, **Shyr Y**. Dysregulated ligand-receptor interactions from single-cell transcriptomics. *Bioinformatics* 2022;38(12):3216-21. doi:10.1093/bioinformatics/btac294. Epub 2022 Apr 28. PMID: 35482476; PMCID: PMC9191214.
512. Mack PC, Gomez JE, Rodilla AM, Carreño JM, Hsu CY, Rolfo C, Meshulami N, Moore A, Brody RI, King JC, Treatman J, Lee S, Raskin A, Srivastava K, Gleason CR, de Miguel-Perez D; PARIS/PSP study group, Tcheou J, Bielak D, Acharya R, Gerber DE, Rohs N, Henschke CI, Yankelevitz DF, Simon V, Minna JD, Bunn PA Jr, García-Sastre A, Krammer F, **Shyr Y**, Hirsch FR. Longitudinal COVID-19-vaccination-induced antibody responses and Omicron neutralization in patients with lung cancer. *Cancer Cell* 2022;40(6):575-577. doi:10.1016/j.ccell.2022.04.012. PMID: 35504289; PMCID: PMC9020481.
513. Rubinstein SM, Bhutani D, Lynch RC, Hsu CY, **Shyr Y**, Advani S, Mesa RA, Mishra S, Mundt DP, Shah DP, Sica RA, Stockerl-Goldstein KE, Stratton C, Weiss M, Beeghly-Fadiel A, Accordino M, Assouline SE, Awosika J, Bakouny Z, Bashir B, Berg S, Bilan MA, Castellano CA, Cogan JC, Kc D, Friese CR, Gupta S, Hausrath D, Hwang C, Johnson NA, Joshi M, Kasi A, Klein EJ, Koshkin VS, Kuderer NM, Kwon DH, Labaki C, Latif T, Lau E, Li X, Lyman GH, McKay RR, Nagaraj G, Nizam A, Nonato TK, Olszewski AJ, Polimera HV, Portuguese AJ, Puc MM, Razavi P, Rosovski R, Schmidt A, Shah SA, Shastri A, Su C, Torka P, Wise-Draper TM, Zubiri L, Warner JL, Thompson MA; COVID-19 and Cancer Consortium. Patients recently treated for B-lymphoid malignancies show increased risk of severe COVID-19. *Blood Cancer Discov* 2022;3(3):181-193. doi:10.1158/2643-3230.BCD-22-0013. PMID: 35262738.
514. Lin EP, Hsu CY, Berry L, Bunn P, **Shyr Y**. Analysis of cancer survival associated with immune checkpoint inhibitors after statistical adjustment: A systematic review and meta-analyses. *JAMA Netw Open* 2022;5(8):e2227211. doi:10.1001/jamanetworkopen.2022.27211. PMID: 35976648; PMCID: PMC9386543.
515. Zhu X, Gao D, Albertazzi V, Zhong J, Ma LJ, Du L, **Shyr Y**, Kon V, Yang HC, Fogo AB. Podocyte-related mechanisms underlying survival benefit of long-term angiotensin receptor blocker. *Int J Mol Sci* 2022;23(11):6018. doi:10.3390/ijms23116018. PMID: 35682697; PMCID: PMC9181646.
516. Lin EP, Hsu CY, Chiou JF, Berry L, Horn L, Bunn P, Yang JC, Yang PC, Adjei AA, **Shyr Y**. Cox proportional hazard ratios overestimate survival benefit of immune checkpoint inhibitors (ICI): Cox-TEL adjustment and meta-analyses of programmed death ligand 1 expression and ICI survival benefit. *J Thorac Oncol* 2022;17(12):1365-1374. doi:10.1016/j.jtho.2022.08.010. Epub 2022 Aug 30. PMID: 36049656.

517. Shoemaker MB, Yoneda ZT, Crawford DM, Akers WS, Richardson T, Montgomery JA, Phillips S, **Shyr Y**, Saavedra P, Estrada JC, Kanagasundram A, Shen ST, Michaud GF, Crossley G, Ellis CR, Knollmann BC. A mechanistic clinical trial using (*R*)-versus (*S*)-propafenone to test RyR2 (ryanodine receptor) inhibition for the prevention of atrial fibrillation induction. *Circ Arrhythm Electrophysiol* 2022;15(10):e010713. doi:10.1161/CIRCEP.121.010713. Epub 2022 Sep 27. PMID: 36166682; PMCID: PMC9588733.
518. Alexander MR, Hank S, Dale BL, Himmel L, Zhong X, Smart CD, Fehrenbach DJ, Chen Y, Prabakaran N, Tirado B, Centrella M, Ao M, Du L, **Shyr Y**, Levy D, Madhur MS. A single nucleotide polymorphism in *SH2B3/LNK* promotes hypertension development and renal damage. *Circ Res* 2022;131(9):731-747. doi:10.1161/CIRCRESAHA.121.320625. Epub 2022 Sep 28. PMID: 36169218; PMCID: PMC9588739.
519. Liu Q, Hsu CY, **Shyr Y**. Scalable and model-free detection of spatial patterns and colocalization. *Genome Res* 2022;32(9):1736-1745. doi:10.1101/gr.276851.122. Epub 2022 Sep 9. PMID: 36223499; PMCID: PMC9528978. *Winner of the 2023 Vanderbilt Biostatistics Methods Publication Award.*
520. Lin EP, Huang LC, Whisenant J, York S, Osterman T, Lewis J, Iams W, Skotte E, Cass A, Hsu CY, **Shyr Y**, Horn L. Associations of influenza vaccination with severity of immune-related adverse events in patients with advanced thoracic cancers on immune checkpoint inhibitors. *ERJ Open Res* 2022;8(4):00684-2021. doi:10.1183/23120541.00684-2021. PMID: 36225333; PMCID: PMC9549316.
521. Kim JW, McKay RR, Radke MR, Zhao S, Taplin ME, Davis NB, Monk P, Appleman LJ, Lara PN Jr, Vaishampayan UN, Zhang J, Paul AK, Bublely G, Van Allen EM, Unlu S, Huang Y, Loda M, Shapiro GI, Glazer PM, LoRusso PM, Ivy SP, **Shyr Y**, Swisher EM, Petrylak DP. Randomized trial of olaparib with or without cediranib for metastatic castration-resistant prostate cancer: The results from National Cancer Institute 9984. *J Clin Oncol* 2023;41(4):871-880. doi:10.1200/JCO.21.02947. Epub 2022 Oct 18. PMID: 36256912.
522. Bakouny Z, Labaki C, Grover P, Awosika J, Gulati S, Hsu CY, Alimohamed SI, Bashir B, Berg S, Bilen MA, Bowles D, Castellano C, Desai A, Elkrief A, Eton OE, Fecher LA, Flora D, Galsky MD, Gatti-Mays ME, Gesenhues A, Glover MJ, Gopalakrishnan D, Gupta S, Halfdanarson TR, Hayes-Lattin B, Hendawi M, Hsu E, Hwang C, Jandarov R, Jani C, Johnson DB, Joshi M, Khan H, Khan SA, Knox N, Koshkin VS, Kulkarni AA, Kwon DH, Matar S, McKay RR, Mishra S, Moria FA, Nizam A, Nock NL, Nonato TK, Panasci J, Pomerantz L, Portuguese AJ, Provenzano D, Puc M, Rao YJ, Rhodes TD, Riely GJ, Ripp JJ, Rivera AV, Ruiz-Garcia E, Schmidt AL, Schoenfeld AJ, Schwartz GK, Shah SA, Shaya J, Subbiah S, Tachiki LM, Tucker MD, Valdez-Reyes M, Weissmann LB, Wotman MT, Wulff-Burchfield EM, Xie Z, Yang YJ, Thompson MA, Shah DP, Warner JL, **Shyr Y**, Choueiri TK, Wise-Draper TM; COVID-19 and Cancer Consortium. Interplay of immunosuppression and immunotherapy among patients with cancer and COVID-19. *JAMA Oncol* 2023;9(1):128-134. doi:10.1001/jamaoncol.2022.5357. Epub 2022 Nov 3. PMID: 36326731; PMCID: PMC9634600.
523. Lander EM, Rappazzo KC, Huang LC, Hu JR, Chen H, **Shyr Y**, Abramson VG. Using the HER2/CEP17 FISH ratio to predict pathologic complete response following neoadjuvant anti-HER2 doublet therapy in HER2+ breast cancer. *Oncologist* 2023;28(2):123-130. doi:10.1093/oncolo/oyac247. PMID: 36495309; PMCID: PMC9907044.
524. Liu Q, Zhou Y, Cogan JD, Mitchell DB, Sheng Q, Zhao S, Bai Y, Ciombor KK, Sabusap CM, Markin CR, Douglas K, Ding G, Malabanan MM, Banovich NE, Nickerson DA, Blue EE, Bamshad MJ, Brown KK, Schwartz DA, Phillips JA 3rd, Martinez-Barricarte R, Salisbury ML, **Shyr Y**, Loyd JE, Kropski JA, Blackwell TS. The genetic landscape of familial pulmonary fibrosis. *Am J Respir Crit Care Med* 2023;207(10):1345-1357. doi:10.1164/rccm.202204-0781OC. PMID: 36622818.
525. Blakely CM, Weder W, Bubendorf L, He J, Majem M, Shyr Y, Chaff JE. Primary endpoints to assess the efficacy of novel therapeutic approaches in epidermal growth factor receptor-mutated, surgically resectable non-small cell lung cancer: A review. *Lung Cancer* 2023;177:59-72. doi: 10.1016/j.lungcan.2023.01.002. Epub 2023 Jan 2. PMID: 36736076.

526. Choueiri TK, Labaki C, Bakouny Z, Hsu CY, Schmidt AL, de Lima Lopes G Jr, Hwang C, Singh SRK, Jani C, Weissmann LB, Griffiths EA, Halabi S, Wu U, Berg S, O'Connor TE, Wise-Draper TM, Panagiotou OA, Klein EJ, Joshi M, Yared F, Dutra MS, Gatson NTN, Blau S, Singh H, Nanchal R, McKay RR, Nonato TK, Quinn R, Rubinstein SM, Puc M, Mavromatis BH, Vikas P, Faller B, Zaren HA, Del Prete S, Russell K, Reuben DY, Accordino MK, Singh H, Friese CR, Mishra S, Rivera DR, **Shyr Y**, Farmakiotis D, Warner JL. Breakthrough SARS-CoV-2 infections among patients with cancer following two and three doses of COVID-19 mRNA vaccines: A retrospective observational study from the COVID-19 and Cancer Consortium. *Lancet Reg Health Am* 2023;19:100445. doi: 10.1016/j.lana.2023.100445. Epub 2023 Feb 13. PMID: 36818595; PMCID: PMC9925160.
527. Deng L, Hsu CY, **Shyr Y**. Power and sample sizes estimation in clinical trials with treatment switching in intention-to-treat analysis: A simulation study. *BMC Med Res Methodol* 2023;23(1):49. doi: 10.1186/s12874-023-01864-1. PMID: 36823545; PMCID: PMC9948351.
528. Fanucci K, Pilat MJ, Shyr D, **Shyr Y**, Boerner S, Li J, Durecki D, Drappatz J, Puduvalli V, Lieberman FS, Gonzalez J, Giglio P, Ivy SP, Bindra RS, Omuro A, LoRusso P. Multicenter phase II trial of the PARP inhibitor olaparib in recurrent *IDH1*- and *IDH2*-mutant glioma. *Cancer Res Commun* 2023;3(2):192-201. doi: 10.1158/2767-9764.CRC-22-0436. PMID: 36968138; PMCID: PMC10035510.
529. Tierney WS, Huang LC, Chen SC, Berry LD, Anderson C, Amin MR, Benninger MS, Blumin JH, Bock JM, Bryson PC, Castellanos PF, Clary MS, Cohen SM, Crawley BK, Dailey SH, Daniero JJ, de Alarcon A, Donovan DT, Edell ES, Ekbom DC, Fink DS, Franco RA, Garrett CG, Guardiani EA, Hillel AT, Hoffman HT, Hogikyan ND, Howell RJ, Johns MM, Kasperbauer JL, Khosla SM, Kinnard C, Kupfer RA, Langerman AJ, Lentz RJ, Lorenz RR, Lott DG, Makani SS, Maldonado F, Matrka L, McWhorter AJ, Merati AL, Mori M, Netterville JL, O'Dell K, Ongkasuwan J, Postma GN, Reder LS, Rohde SL, Richardson BE, Rickman OB, Rosen CA, Rohlfing M, Rutter MJ, Sandhu GS, Schindler JS, Schneider GT, Shah RN, Sikora AG, Sinard RJ, Smith ME, Smith LJ, Soliman AMS, Sveinsdóttir S, Veivers D, Verma SP, Weinberger PM, Weissbrod PA, Wootten CT, **Shyr Y**, Francis DO, Gelbard A. Comparative treatment outcomes for idiopathic subglottic stenosis: 5-year update. *Otolaryngol Head Neck Surg* 2023;168(6):1570-1575. doi: 10.1002/ohn.190. Epub 2023 Jan 19. PMID: 36939627.
530. Wang J, Chen HC, Sheng Q, Dawson TR, Coffey RJ, Patton JG, Weaver AM, **Shyr Y**, Liu Q. Systematic assessment of small RNA profiling in human extracellular vesicles. *Cancers (Basel)*. 2023;15(13):3446. doi: 10.3390/cancers15133446. PMID: 37444556; PMCID: PMC10340377.
531. Gulati S, Hsu CY, Shah S, Shah PK, Zon R, Alsamarai S, Awosika J, El-Bakouny Z, Bashir B, Beeghly A, Berg S, de-la-Rosa-Martinez D, Doroshov DB, Egan PC, Fein J, Flora DB, Friese CR, Fromowitz A, Griffiths EA, Hwang C, Jani C, Joshi M, Khan H, Klein EJ, Heater NK, Koshkin VS, Kwon DH, Labaki C, Latif T, McKay RR, Nagaraj G, Nakasone ES, Nonato T, Polimera HV, Puc M, Razavi P, Ruiz-Garcia E, Saliby RM, Shastri A, Singh SRK, Tagalakis V, Vilar-Compte D, Weissmann LB, Wilkins CR, Wise-Draper TM, Wotman MT, Yoon JJ, Mishra S, Grivas P, **Shyr Y**, Warner JL, Connors JM, Shah DP, Rosovsky RP; COVID-19 and Cancer Consortium. Systemic anticancer therapy and thromboembolic outcomes in hospitalized patients with cancer and COVID-19. *JAMA Oncol* 2023; 9(10):1390-1400. doi: 10.1001/jamaoncol.2023.2934. Epub 2023 Aug 17. PMID: 37589970; PMCID: PMC10436185.
532. Huang LC, Stolze LK, Chen HC, Gelbard A, **Shyr Y**, Liu Q, Sheng Q. scDemultiplex: An iterative beta-binomial model-based method for accurate demultiplexing with hashtag oligos. *Comput Struct Biotechnol J* 2023;21:4044-4055. doi: 10.1016/j.csbj.2023.08.013. PMID: 37664174; PMCID: PMC10469060.
533. Lander EM, Li X, Huang LC, Cass AS, Iams WT, Skotte EA, Whisenant JG, Ramirez RA, York SJ, Osterman TJ, Lewis JA, Lovly CM, **Shyr Y**, Horn L. Identification and characterization of avoidable hospital admissions in patients with lung cancer. *J Natl Compr Canc Netw* 2023;21(10):1050-1057.e13. doi: 10.6004/jnccn.2023.7049. PMID: 37856197.
534. Rodilla AM, Valanparambil RM, Mack PC, Hsu CY, Cagan J, Tavolacci SC, Carreño JM, Brody R, Moore A, King JC, Gomez JE, Rohs N, Rolfo C, Bunn PA Jr, Gerber DE, Minna JD, Krammer F, Ramalingam SS, Garcia-Sastre A, **Shyr Y**, Ahmed R, Hirsch FR. Longitudinal nucleocapsid antibody testing reveals

undocumented SARS-CoV-2 infections in patients with lung cancer. *Cancer Cell* 2023;41(11):1838-1840. doi: 10.1016/j.ccell.2023.09.017. Epub 2023 Oct 19. PMID: 37863065.

535. Lehmann BD, Abramson VG, Dees EC, Shah PD, Ballinger TJ, Isaacs C, Santa-Maria CA, An H, Gonzalez-Ericsson PI, Sanders ME, Newsom KC, Abramson RG, Sheng Q, Hsu CY, **Shyr Y**, Wolff AC, Pietenpol JA. Atezolizumab in combination with carboplatin and survival outcomes in patients with metastatic triple-negative breast cancer: The TBCRC 043 phase 2 randomized clinical trial. *JAMA Oncol* 2023:e235424. doi: 10.1001/jamaoncol.2023.5424. Epub 2023 Dec 14. PMID: 38095878; PMCID: PMC10722391.
536. Yang J, Liu Q*, **Shyr Y***. A large-scale meta-analysis reveals positive feedback between macrophages and T cells that sensitizes tumors to immunotherapy. *Cancer Res* 2024;84(4):626-638. doi: 10.1158/0008-5472.CAN-23-2006. Epub 2023 Dec 20. PMID: 38117502. *co-corresponding authors
537. Cecchini M, Cleary JM, **Shyr Y**, Chao J, Uboha N, Cho M, Shields A, Pant S, Goff L, Spencer K, Kim E, Stein S, Kortmanský JS, Canosa S, Sklar J, Swisher EM, Radke M, Ivy P, Boerner S, Durecki DE, Hsu CY, LoRusso P, Lacy J. NCI10066: A Phase 1/2 study of olaparib in combination with ramucirumab in previously treated metastatic gastric and gastroesophageal junction adenocarcinoma. *Br J Cancer* 2024;130(3):476-482. doi: 10.1038/s41416-023-02534-1. Epub 2023 Dec 22. PMID: 38135713.
538. Beckermann KE, Bestvina CM, El Osta B, Sanborn RE, Borghaei H, Lammers PE, Selvaggi G, Whisenant JG, Heimann-Nichols E, Berry L, Hsu CY, **Shyr Y**, Horn L, Wakelee H. A Phase 1/2 study to evaluate the safety and activity of nivolumab in combination with vorolanib, a vascular endothelial growth factor tyrosine kinase inhibitor, in patients with refractory thoracic tumors. *JTO Clin Res Rep* 2023;5(2):100619. doi: 10.1016/j.jtocrr.2023.100619. PMID: 38328473; PMCID: PMC10847019.
539. Chen HC, Wang J, **Shyr Y***, Liu Q*. FindAdapt: A python package for fast and accurate adapter detection in small RNA sequencing. *PLoS Comput Biol* 2024;20(1):e1011786. doi: 10.1371/journal.pcbi.1011786. PMID: 38252662; PMCID: PMC10833567. *co-corresponding authors
540. Hsu CY, Chang CJ, Liu Q*, **Shyr Y***. scKWARN: Kernel-weighted-average robust normalization for single-cell RNA-seq data. *Bioinformatics*. 2024;40(2):btac008. doi: 10.1093/bioinformatics/btac008. PMID: 38237908; PMCID: PMC10868328. *co-corresponding authors

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