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| MAGEC Molecular and Genetic Epidemiology- Syllabus  Teal background: All in same week Borders: Single time block  All lectures will be held in the 6th floor Boardroom conference room in the 2525 West End building. | | |
| Date & Time | **Title of Lecture** | **Faculty** |
| March 3, 1-2 PM | Introduction to Molecular Epidemiology | Wei Zheng |
| March 3, 2-3 PM | Predictive and prognostic biomarkers: types, methods of detection, challenges | Leon Raskin |
| March 5, 9-10 AM | Molecular epidemiology studies of somatic molecular alterations in cancer | Leon Raskin |
| March 5, 10-11 AM | Epigenetic biomarkers | Qiuyin Cai |
| March 11, 9-10 AM | DNA repair, DNA adducts, and oxidative stress biomarkers | Qiuyin Cai |
| March 11, 10-11 AM | Metabolomics | Thomas Wang |
| March 17, 1-2 | Biological sample collection, processing and storage | Qiuyin Cai |
| March 17, 2-3 PM | Introduction to genetic epidemiology | Jirong Long |
| March 24, 2-3 PM | Microbiome | Martha Shrubsole |
| March 24, 3-4 PM | Statistical considerations for analyzing high dimensional data | Yu Shyr |
| April 1, 3-4 PM | Admixture and population stratification | Melinda Aldrich |
| April 1, 4-5 PM | Functional genomics (ENCODE) | Jirong Long |
| April 14, 2-3 PM | Exome and whole genome sequencing | Chun Li |
| April 14, 3-4 PM | High throughput genetic data analysis | Todd Edwards |
| April 16, 10-11 AM | RNA and mitochondrial DNA sequencing | Yan Guo |
| April 16, 11-12 AM | Statistical methods for analyzing rare variants | Bingshan Li |
| April 21, 9-10 AM | Meta- and pooled analysis | Wanqing Wen |
| April 21, 10-11 AM | Bioinformatics tools | Zhongming Zhao |
| April 28, 9-10 AM | Mendelian randomization | Ben Zhang |
| April 28, 10-11 AM | Translational opportunities for molecular epidemiology studies: personalized medicine | Leon Raskin |