CAMB 605 Course Syllabus (Fall 2025)

Tuesdays 1:45-3:15p

September 2 – December 9, 2023

Course Director: Matt Good (mattgood@pennmedicine.upenn.edu), 1151 BRB

Paper Presentation Schedule

9/2. CAMB 605 Course Overview

9/9. MVP. TIGR-Tas: A family of modular RNA-guided DNA-targeting systems in prokaryotes and their viruses. Science 2025.

9/16. G&E. Phenotypic complexities of rare heterozygous neurexin-1 deletions. Nature 2025.

9/23. CPM. Metabolic adaptations direct cell fate during tissue regeneration. Nature 2025

9/30. GTV. Rewiring endogenous genes in CAR T cells for tumour-restricted payload delivery. Nature 2025.

10/7. DSRB. ChemPerturb-seq screen identifies a small molecule cocktail enhancing human beta cell survival after subcutaneous transplantation. Cell Stem Cell 2025

10/14. CB. Coordinated inheritance of extrachromosomal DNAs in cancer cells. Nature 2024.

10/21 - No CAMB 605 class

10/28. MVP. Passage of the HIV capsid cracks the nuclear pore. Cell 2025.

11/4. G&E. <u>Integrative functional genomic analyses identify genetic variants influencing skin pigmentation in Africans. Nature Genetics 2024.</u>

11/11. CPM. Retrograde mitochondrial signaling governs the identity and maturity of metabolic tissues. Science 2025

11/18. GTV. Patient-Specific In Vivo Gene Editing to Treat a Rare Genetic Disease. NEJM 2025.

11/25 - No CAMB 605 class

12/2. DSRB. The establishment of nuclear organization in mouse embryos is orchestrated by multiple epigenetic pathways. Cell 2025.

12/9. CB. Pancreatic cancer–restricted cryptic antigens are targets for T cell recognition. Science 2025.