## YALE CENTER FOR RNA SCIENCE AND MEDICINE

## RETREAT 2024 PROGRAM

O. C. Marsh Auditorium, Yale Science Building, New Haven, CT 06511—25 October 2024 Registration and Breakfast (Marsh Lobby) 08:00-09:00 Karla Neugebauer (Professor of MB&B, Director of the Yale RNA Center) 09:00-09:15 09:15–10:25 Chair: Dagmar Zigackova (Neugebauer Lab) **Session I** (Marsh Auditorum) 09:15-09:35 **Kirstin Meyer** (Professor of MCDB) Decoding transcription factor dynamics through transcriptional condensates Kevin Tse (Smith Lab, Genetics) 09:35-09:50 Regulative transitions in LINE-1 RNP formation and activity within early mouse embryos 09:50-10:10 Manoj Pillai (Professor of Hematology) Don't Blame the Messenger: Splicing Factor Mutations Rewire Transcription and Chromatin Dynamics 10:10–10:25 **Alexandra Bergfort** (Neugebauer Lab, MB&B) EIF4A3 prevents widespread coordinated exon skipping across human genes 10:25–11:25 Poster I & Coffee (Odds, Marsh Lobby) 11:25–12:35 Session II (Marsh Auditorum) Chair: Danni Jin (Gilbert Lab) 11:25-11:45 Claudia Mimoso (Reinke and Noonan Labs, Genetics) U1 snRNP increases RNA Pol II elongation rate to enable synthesis of long genes Mark S. Williams (Thoreen Lab, Cellular and Molecular Physiology)
Post-transcriptional regulation of TOP mRNAs is required for normal brain development 11:45–12:00 and spatial memory 12:00–12:15 **Srikar Gopinath** (Giraldez Lab, Genetics) Measuring the functional impact of 5' UTR variants in human disease 12:15–12:35 Stefania Nicoli (Professor of Cardiovascular Medicine and Genetics) Guardians of Gene Expression: A Tribute to microRNAs 12:35–13:35 **Lunch** (Marsh Lobby) Chair: Zion Perry (Pyle Lab) 13:35–14:40 **Session III** (Marsh Auditorum) Sabrina G. Grunseich (Strobel Lab, Chemistry) 13:35–13:50 High-Throughput Mutational Analysis of Translation Initiation by an IGR IRES 13:50–14:05 Tanja Hann (Pyle Lab, MB&B) Discovering regulatory RNA structure in the murine norovirus (MNV) genome Hannah Barsouk (Breaker Lab, MB&B) 14:05–14:20 Disruption of the OLE RNP Complex Enhances Bacterial Tolerance to Antibiotics that Stall the Ribosome 14:20-14:40 **Eric Wang** (Professor, The Jackson Laboratory) Post-transcriptional inactivation of a tumor suppressor program in leukemia 14:40–15:40 Poster II & Coffee (Evens, Marsh Lobby) 15:40-17:05 Session IV (Marsh Auditorum) **Chair: Ethan Strayer** (Giraldez Lab) 15:40–15:55 Haejeong Lee (Giraldez Lab, Genetics) Deciphering the code: codons, codon-codon interactions, amino acids, and peptide bonds regulate mRNA stability 15:55–16:15 Clemens Scherzer (Professor of Neurology) Gene activity map of 1 million brain cells identifies Parkinson's disease genes 16:15–16:30 Diana Martínez Saucedo (Escobar-Hoyos Lab, Therapeutic Radiology) Systemic targeting of therapeutic RNA to pancreatic ductal adenocarcinoma via a novel, cell-penetrating, and nucleic acid-binding monoclonal antibody 16:30–16:50

17:05–18:30 Reception and Entertainment (Marsh Lobby)

Closing remarks

16:50–17:05

**Ailong Ke** (Professor of MB&B)

Less is more: Converting IscB into a versatile RNA-guided RNA editor

Karla Neugebauer (Professor of MB&B, Director of the Yale RNA Center)