

Gene W. Yeo, Ph.D., MBA Professor Dept of Cellular and Molecular Medicine, University of California San Diego Founding member, UCSD Institute for Genomic Medicine Member, UCSD Stem Cell Program Member, UCSD Moores Cancer Center <u>ewyeo@ucsd.edu</u> <u>https://www.yeolab.com</u> twitter: @yeo\_lab

Gene Yeo PhD MBA is a Professor of Cellular and Molecular Medicine at the University of California San Diego (UCSD), the founding Director for UCSD's Center for RNA Technologies and Therapeutics, the founding Chief Scientific Advisor for Sanford Laboratories for Innovative Medicine, a founding member of the Institute for Genomic Medicine and member of the UCSD Stem Cell Program and Moores Cancer Center. Dr. Yeo has a BSc in Chemical Engineering and a BA in Economics from the University of Illinois, Urbana-Champaign, a Ph.D. in Computational Neuroscience from Massachusetts Institute of Technology, and an MBA from the UCSD Rady School of Management. Dr. Yeo serves as Co-Director of the Bioinformatics and Systems Biology Graduate Program, as Associate Director of a Genetics T32 training program at UCSD and as Chair of the Scientific Steering Committee of Sanford Consortium for Regenerative Medicine in La Jolla.

Dr. Yeo is a computational and experimental molecular and cell biologist who has contributed to genomics, RNA biology and therapeutics. His primary research interest is in understanding how RNA processing is regulated and the roles that RNA binding proteins (RBPs) play in development and disease. Gene has authored >200 peer-reviewed publications (h-index 89 and i10-index 161) including invited book chapters and review articles in the areas of neurodegeneration, RNA processing, computational biology and stem cell models; and served as Editor on two books on the biology of RNA binding proteins. Gene's mechanistic studies in RNA biology tend to feature comprehensive, systematic and robust methodologies developed by his lab, such as enhanced CLIP for the purposes of large-scale mapping of protein-RNA interactions (Van Nostrand *et al, Nature Methods,* 2016; >1000 citations). His lab has also developed the STAMP technology (Brannan *et al, Nature Methods,* 2021) which is the first transcriptome-wide method for identifying RNA binding protein sites and measuring mRNA translation at single-cell resolution and with isoform-sensitivity. To facilitate biological interpretation of RBP interactomics data, Gene's lab also pioneers computational algorithms, such as CLIPper (Lovci *et al, NSMB,* 2013; >300 citations), SONAR (Brannan *et al, Molecular Cell,* 2016 and recently SKIPPER (Boyle *et al, Cell Genomics,* 2023). As a graduate student Dr. Yeo authored the MaxENT splice site algorithm (Yeo *et al, Journal Comp Biology,* 2003), which is arguably one of the most utilized and cited splice site scores. Armed with these cutting-edge technologies, his lab is also a major contributor of resources to study RBPs that enable hundreds of labs across many areas of bioscience, such as the world's largest resource of RBP-specific antibodies that facilitated generation and interpretation of the most comprehensive maps of RBP-binding sites to date for hundreds of RBPs (Van Nostrand *et al, Nature,* 2020; >500 citations).

Dr. Yeo has also leveraged his understanding of how protein-RNA complexes control molecular and cellular pathways to develop **RNA-targeting therapeutics** and to identify **RBPs as candidate targets** for neurodevelopmental disorders, neurodegeneration and cancer. Gene's lab also develops stem cell-based models of human disorders such as myotonic dystrophy, Huntington's disease and ALS/FTD to study how defects in RNA processing leads to pathological hallmarks as well as evaluate therapeutic paradigms developed in his lab. To illustrate, Gene's lab has systematically studied normal and mutant RBPs in neurodegeneration, and uncovered RBPs that condense into RNA granules during stress and demonstrated strategies to leverage these for therapeutic use in neurodegeneration (Markmiller *et al, Cell,* 2018; >600 citations; Fang *et al, Neuron,* 2019; Wheeler *et al, Nature Methods,* 2020). His lab also demonstrated in vivo RNA targeting with CRISPR/Cas proteins (Nelles *et al, Cell,* 2016;>500 citations) with proof of concept in repeat expansion disorders in mice and 3D brain organoid models (Batra *et al, Cell,* 2017; Batra *et al, Nature Biomedical Engineering,* 2020; Morelli *et al, Science Translational Medicine,* 2022; Morelli *et al, Nature Neuroscience* 2022). Work from the Yeo lab has been highlighted in *Nature Methods* and *Nature Reviews Genetics* as "Method to Watch" and featured as a top story in *Discover* magazine. These efforts have led to clinical programs to develop medicines for RNA-related diseases.

Gene is on the Editorial Boards of the journals Cell Reports, Cell Research and eLife, and on the Advisory Board of Review commons. Gene joined UCSD as an Assistant Professor in 2008, was promoted with tenure to Associate Professor in 2014 and to Professor in 2016. Gene was the inaugural Crick-Jacobs Fellow at the Salk Institute (2005-2008). Other awards include the Alfred P Sloan Fellowship in recognition of his work in computational molecular biology (2011), Alpha Chi Sigma-Zeta Chapter Krug Lecturer (2016), Singapore National Research Foundation Visiting Investigatorship Award (2017), the inaugural Early Career Award from the International RNA Society (2017), the Blavatnik National Award Finalist (2018 & 2019), San Diego Xconomy Awardee for 'Big Idea' (2019) and Highly Cited Researcher in Cross-Field category (2019, 2020, 2021, 2022), recognizing the world's most influential researchers of the past decade. Gene is also a Paul Allen Distinguished Investigator (2020) and received the 2021 Elisa Izaurralde Award for Innovation in Research, Teaching and Service from the RNA Society. In 2023, Gene received the inaugural Academia Europaea (AE) Sydney Brenner Medal (SBM) given to honor the best in scholarship and personal achievements not more than 20 years after the PhD degree. given within the field of molecular biology and related disciplines. Gene is an elected member of AE. Gene is a co-founder of biotech companies which includes Locanabio, Eclipse Bioinnovations, Enzerna, Proteona (acquired by Singleron), Trotana and Orbital Therapeutics. Gene serves or had served on the scientific advisory boards of the Allen Institute of Immunology, Locanabio, Eclipse Bioinnovations, Proteona, CircBio, Aquinnah, Cell Applications, Tecan, LGC, Sardona Therapeutics, Insitro, Trotana, Nooma, Ribometrix, Automera, Atomic.AI, AmberBio and IntronX. Gene is among the top 50 life science academic entrepreneurs as released by BIOS Beaker List and recently received the inaugural Entrepreneurial Achievement Award by the Rady School of Management in 2023. Gene is a senior advisor to Accelerator Life Sciences Partners. Gene's lab has current or previous support from the National Institute of Health, National Science Foundation, California Institute for Regenerative Medicine, TargetALS, ALS Foundation, Department of Defense, Myotonic Dystrophy Association, Myotonic Dystrophy Foundation, Chan-Zuckerberg Initiative, Takeda, Genentech and Roche.

Gene is the faculty founder of DASL (Diversity and Science Lecture Series, 2020) providing a voice for scientists to discuss diversity, equity and inclusion challenges and celebrate their scientific achievements (now funded by CZI). Gene is the founder of the SCREEN (San Diego Covid-19 Research Enterprise Network, 2020) and founding member of the SEARCH (San Diego Epidemiology and Research for Covid Health, 2020) alliances in San Diego. SCREEN had ~1000 scientist members in San Diego focusing on grassroots research coordination and community outreach. SEARCH is focused on epidemiology studies of the prevalence of the virus completing a 12000-person study of viral spread. Gene helped found the EXCITE

(Expedited Covid Identification Environment) lab that performs Covid high-throughput testing at UCSD and served as a member of the Return-to-Learn steering committee at UCSD. Gene was a Sword of Honor recipient (the highest honor) in Officer Cadet School in 1999 and has served in the Singapore Navy as a Naval officer. Gene had completed 2 full Ironman-distance and multiple half-ironman-, olympic-, sprint-distance triathlons, full marathons and half-marathons, but now spends time rock climbing.

Contact information: University of California San Diego Sanford Consortium for Regenerative Medicine 2880 Torrey Pines Scenic Drive La Jolla, CA 92037 858-534-9321 (office) ewyeo@ucsd.edu Gene W. Yeo PhD MBA Scientist, Entrepreneur

Professor Dept. of Cellular and Molecular Medicine UCSD Stem Cell Program Institute for Genomic Medicine Moores Cancer Center

### **RESEARCH INTERESTS**

- Understanding RNA processing: My lab seeks to uncover mechanisms and pathways underlying post-transcriptional control, mediated by the interaction between RNA binding proteins and *cis*-regulatory elements. We utilize large-scale biochemical and genomics assays coupled with high-throughput sequencing to study the molecular mechanisms of and biological impact underlying alternative splicing, polyadenylation, transport, translation, RNA turnover and microRNA biology. We are the world's leader in developing the molecular and cellular resources and robust technologies required for truly large-scale studies of hundreds of RNA binding proteins and their RNA targets. We have published over a hundred papers in this space. I have co-founded Eclipse Bioinnovations that leverages the enhanced CLIP technologies to provide RNA services and reagents to the broad community.
- RNA Therapeutics: My lab published the first demonstration of targeting RNA in live cells using the CRISPR/Cas9 technology in 2016 (Nelles et al, *Cell*, 2016) and we are pursuing multiple avenues of applications ranging from therapeutic intervention of neuromuscular diseases (Batra et al, *Cell*, 2017) to single cell RNA imaging. This has led to my co-founding Locana that is focused on bringing RNA-targeting gene therapy to the clinic for neuromuscular diseases. In my lab, we are also developing new ways of using nucleic acids to manipulate RNA.
- <u>Neurological diseases</u>: My lab studies the molecular basis of mental disorders such as autism spectrum disorders and neuromuscular diseases (ALS) and myotonic dystrophy (DM) using *in vitro* stem cell models and *in vivo* mice models.
- <u>Virus-host</u> interactions: My lab reveals new insights into how DNA and RNA viruses affect the host transcriptome.
- Single cell technologies and analysis: My lab develops new molecular capture methods and machine-learning approaches to single cell RNA-seq/DNA analysis and visualization tools.

### **EDUCATION AND TRAINING**

Salk Institute, La Jolla, CA	Junior Fellow, Crick-Jacobs Center for Computational and Theoretical Biology; Senior Fellow Mentors: Fred Gage and Sean Eddy	July 2005-Sept 2008
University of California, San Diego, CA	Masters of Business Administration at the Rady School of Management	Sept 2006- Aug 2008
Massachusetts Institute of Technology, Cambridge, MA	Ph.D. in Computational Neuroscience, Department of Brain and Cognitive Sciences; Advisors: Christopher Burge and Tomaso Poggio, Members: Phillip Sharp and Martha Constantine-Paton.	Sept 2000- Feb 2005
University of Illinois, Urbana- Champaign, IL	Bachelor of Science (B.S.) in Chemical Engineering, Highest Honors, Supervisor: Charles Zukoski. Bachelor of Arts (B.A.) in Economics, High Honors	1994-1998

### PRIMARY FACULTY APPOINTMENTS

University of California, San Diego, CA	Professor, Department of Cellular and Molecular Medicine Department of Bioengineering, Affiliate Neuroscience Graduate Program Co-director, Bioinformatics and Systems Biology Graduate Program	July 1 2016-current 2018-current 2018-current
	Associate Professor, Department of Cellular and Molecular Medicine	July 1 2014-June 30 2016
	Assistant Professor, Department of Cellular and Molecular Medicine Institute for Genomic Medicine UCSD Stem Cell Program UCSD Moores Cancer Center Bioinformatics Graduate Program Biomedical Sciences Graduate Program Material Science and Engineering Graduate Program	Oct 2008-June 30 2014
OTHER APPOINTMENTS		
National University of Singapore	Consultant (Visiting Professor), Department of Physiology	Aug 2013-present
	Adjunct Visiting Assistant Professor, Department of Biological Sciences	Aug 2009-Aug 2013

### PROFESSIONAL EXPERIENCE

Beckman Institute of Advanced Science and Technology, University of Illinois, Urbana-Champaign Zukoski group: Conducted studies on Thin Film Drying stresses using an automated ellipsometer; Conducted studies on the effect of electric fields on 20 micro gold-coated glass spheres using an Atomic Force Microscope.	1996-1997
Affymetrix, Santa Clara, CA Research Technician	1997
Institute of Molecular and Cell Biology, Singapore Research Associate Mentors: Venkatesh Byrappa and Sydney Brenner: Regulatory elements conserved in non-coding regions.	2000
Chiron, Research and Development, Emeryville, CA Research Technician	2000
Millennium Pharmaceuticals, Millennium Predictive Medicine (MPMX), MA Bioinformatics Researcher Developed and critiqued millennium in-house web-tools for classification and feature selection for marker selection in large-scale microarray data. Integrated microarray data and clinical data using Bayesian networks.	2001
Neuron Systems, MA Bioinformatics Consulting	2004-2006
Co-founder, GeneBytes	2008-2010
Bioinformatics Consultant Clients include: ISIS Pharmaceuticals, Sequenom, Roche	2011-2012
Scientific Advisory Board Member, Aquinnah	2014-2017
Scientific Advisory Board Member, Interpreta	2014-2015
Co-founder, <b>Enzerna</b>	2014-current
Co-founder, Director and Scientific Advisor, Locanabio (Incorporated May 3, 2016)	2016-current
Co-founder and Scientific Advisor, ProteoNA (Incorporated March 7, 2017, acquired by Singleron March 7, 2022)	2017-2022
Co-founder, Director and Scientific Advisor, Eclipse Bioinnovations (Incorporated June 23, 2017)	2017-current
Scientific Advisory Board member, Jumpcode	2017-current

Scientific Advisory Board member, Nugen now acquired by Tecan	2017-2018
Scientific Advisory Board member, Ribometrix	2018-2022
Scientific Advisory Board member, Allen Institute for Immunology	2018-current
Scientific Advisory Board member, LGC	2018-current
Scientific Advisory Board member, Sardona Therapeutics	2020-2021
Senior Advisor, Accelerator Life Sciences Partner	2020-current
Scientific Advisory Board member, Nooma	2021-current
Scientific Advisory Board member, Insitro	2021-current
Co-Founder, Scientific Advisory Board member, CircBio	2021-current
Advisor, Nucleate	2021-current
Board Member, <b>n-Lorem</b>	2021-current
Board Member, 1Strand	2021-current
Co-founder, Director and Scientific Advisor, Trotana (Incorporated August 27, 2019)	2021-current
Co-founder, Scientific Advisor, Orbital Therapeutics (March 8, 2022)	2022-current
Scientific Advisory Board member, Automera (June 1, 2022)	2022-current
Board member, ALSP Orchid (August 19, 2022)	2022-current
Scientific Advisory Board member, Atomic.Al (June 17, 2022)	2022-current
Scientific Advisory Board member, IntronX (August 1, 2022)	2022-current
Scientific Advisory Board member, LEXEO (October 1, 2022)	2022-current
Scientific Advisory Board member, Amber Bio (March 15, 2023)	2023-current
Chief Scientific Advisor (consultant), Sanford Laboratories for Innovative Medicine (June 9, 2023)	2023-current

### HONORS, AWARDS AND FELLOWSHIPS

Dean's list, College of Engineering, 1994; College of Liberal Arts and Sciences, 1995-1997.

A.T. Widiger Chemical Engineering Scholarship, 1996.

Hauser Chemical Engineering Scholarship for research, 1996.

Chemical Engineering Alumni Award, 1997.

James Scholar, College of Liberal Arts and Sciences, 1996-1998.

Best in Company and Best in Physical Training Awards during Basic Military Training, 1998 (Singapore)

Sword of Honor, Officer Cadet School, Navy, 1999 (Singapore)

Brain-Cognitive Science Team Award for Outstanding Teaching, 2005

Lee Kuan Yew Graduate Scholarship, by the Lee Kuan Yew Foundation in Singapore, 2000-2005.

First Crick-Jacobs Junior Fellow, Crick-Jacobs Center for Computational and Theoretical Biology, Salk Institute, 2005-2008

Alfred P. Sloan Foundation Sloan Research Fellow, 2011 (2-year fellowships awarded yearly to researchers in recognition of distinguished performance and a unique potential to make substantial contributions on the field; announced in New York Times)

Editorial Board, Cell Reports (2011-current)

Editorial Board, Cell Research (2014-current)

University of Illinois Alpha Chi Sigma-Zeta Chapter Krug Lecturer, 2016

Inaugural RNA Society's Early Career Award, 2017

National Research Foundation Visiting Investigatorship Award, Prime Minister's Office, Singapore, 2017

Finalist for Blavatnik National Awards for Young Scientists, 2018

Xconomy Awardee for San Diego, Big Idea Award Winner, 2019

Finalist for Blavatnik National Awards for Young Scientists, 2019

Highly Cited Researcher 2019 by Clavirate Analytics ranked at the top 1% by citations for their field and year of publication (1 of 2500 for cross-field performance)

Editorial Board, eLife (Dec 2 2019-current)

Editorial Board, Review Commons (Dec 2019-current)

Paul Allen Distinguished Investigator (2020)

Highly Cited Researcher 2020 by Clavirate Analytics ranked at the top 1% by citations for their field and year of publication (1 of 2500 for cross-field performance)

RNA Society Elisa Izaurralde Award for Innovation in Research, Teaching and Service from the RNA Society in 2021. This award recognizes early career researchers who have not only enjoyed success in their research endeavors, but who have also employed innovative approaches to advancing RNA science in the classroom and within their greater communities.

On the Good Morning America Inspiration List's for Asian American Pacific Islander Heritage Month, nominated by Dr. Priscilla Chan (2021)

Editorial Board, RNA journal (2021-current)

Highly Cited Researcher 2021 by Clavirate Analytics ranked at the top 1% by citations for their field and year of publication (1 of 2500 for cross-field performance)

BIOS Beaker List, Top 50 Life Science Academic Entrepreneurs

Highly Cited Researcher 2022 by Clavirate Analytics ranked at the top 1% by citations for their field and year of publication (1 of 2500 for cross-field performance)

Rady School of Management Inaugural Entrepreneurial Achievement Award, May 8 2023

Inaugural Academia Europaea (AE) Sydney Brenner Medal (SBM) given to honor the best in scholarship and personal achievements not more than 20 years after the PhD degree, given within the field of molecular biology and related disciplines, 2023 (personally awarded by Carla Brenner)

### PROFESSIONAL ASSOCIATIONS AND ACADEMIC SERVICE

#### MEMBERSHIPS AND EXTERNAL SERVICE AT PROFESSIONAL SOCIETIES AND CIVIC ORGANIZATIONS

The Honor Society of Phi Kappa Phi (1997-present)

The American Institute of Chemical Engineers (1997-present)

The Phil Lambdas Upsilon Honorary Chemical Society (1997-present)

The Tau Beta Pi National Engineering Honor Society (1997-present)

The Phi Beta Kappa Honor Society (1997-present)

The Golden Key Honor Society (1997-present)

The RNA Society (2005-present)

International Society of Computational Biology (2005-present)

Organizer for Alternative Splicing Special Interest Group, Satellite Conference of ISMB (2012)

Gordon Conference on Post-transcriptional gene regulation (2014, Poster Judge)

RNA society meeting (2015, May, Poster judge)

BIOCOM CRO Steering Committee (2015-current)

Advisory Board (for Oxford Global's 2016 Next Generation Sequencing and Single Cell Congress) (2015-current)

3<sup>rd</sup> annual RNA biology symposium by the Cancer science institute at NUS, Singapore (Co-organizer) (2017)

4<sup>th</sup> annual RNA biology symposium by the Cancer science institute at NUS, Singapore (Co-organizer and chair)(2018)

RNA Society, Kyoto, Japan, June 28- July 2, 2016 (Workshop chair: Computational analysis of RNA data) SingaRNA Symposium, Singapore, July 5, 2016 (Conference organizer)

Single Cell Analysis Course, Cold Spring Harbor Laboratory, 2016 (Course Director and Speaker)

Keystone Symposia Conference: Protein-RNA Interactions: Scale, Mechanisms, Structure & Function of coding and noncoding RNPs, Banff, Canada, 6 Feb 2017 (Primary Organizer)

Systems biology: global regulation of gene expression, Cold Spring Harbor Laboratory, Feb 26-March 2, 2017 (Session Chair)

Single Cell Analysis Course, Cold Spring Harbor Laboratory, 2017 (Course Director and Speaker)

Eukaryotic mRNA Processing Meeting, Cold Spring Harbor Laboratory, Aug 22-26, 2017 (Session chair)

American Society for Neurochemistry, RNA processing and regulation in brain development and disorders, Riverside, Mar 25, 2018 (Co-chair)

Single Cell Analysis Course, Cold Spring Harbor Laboratory, 2018 (Course Director and Speaker)

5th annual RNA biology symposium by the Cancer science institute at NUS, Singapore (Co-organizer and chair)(2019)

Single Cell Analysis Course, Cold Spring Harbor Laboratory, 2019 (Course Director and Speaker)

Single Cell Analysis Course, Cold Spring Harbor Laboratory, 2020 (Course Director)

Biocom's Return to Work Task Force for Covid19, 2020 (Member and Contributor to Guide <u>https://www.biocom.org/coronavirus/return-to-work-resources/</u>)

26th Annual RNA Society 2021 Online Meeting, May 25-June 4, 2021 (Lead Organizer, Panel Chair)

RNA Society Awards Committee, 2021-current

RNA Society Annual Meeting Council Meeting, June 8, 2021

RNA Society Development Committee, 2021-current

RNA Society Nominating Committee (for Board and President), 2022-current

Keystone Symposia Conference: Protein-RNA Interactions, Vancouver, Canada, Jan 29- Feb 1, 2023 (Lead Organizer)

MDC Scientific Advisory Board Meeting (Virtual), July 26, 2023

### UNIVERSITY SERVICE

Stem Cell on the Mesa Planning Committee (2008, 2009, 2010)

UCSD Research Council chaired by Prof Susan Taylor (2008-present)

UCSD Institute for Genomic Medicine, Founding Member (2009-present)

Committee to restructure Biology Graduate Program by adding Bioinformatics, Chaired by Dr Gabriele Wienhausen, Assoc Dean for Education in Div Bio Sciences (2011)

Chair of Sanford Stem Cell Center Genomics and Bioinformatics Core Subcommittee (2011)

Organizing Committee, Institute for Genomic Medicine Annual Conference (2011)

UCSD Biomedical Sciences Graduate Program Admission Committee (2014)

Organizing Committee for IGM Symposium, Single Cell Genomics UCSD (2014)

UCSD Bioinformatics and Systems Biology Graduate Program Admission Committee (2014)

UCSD Genomics Cores Steering Committee (2014-2015)

Center for Computational Biology and Bioinformatics Steering Committee (2013, 2014, 2015)

Institute for Genomic Medicine High-throughput sequencing Steering Committee (2013, 2014, 2015)

Sanford Consortium Stem Cell Genomics Core, Scientific Director and Chair of Steering Committee (2013, 2014, 2015)

Dept of CMM vice-representative For Academic Senate Assembly Meetings (2015)

Dept of CMM Faculty Search Committee (2015, 2016)

UCSD Biomedical Sciences Graduate Program Admission Committee (2015)

UCSD Bioinformatics and Systems Biology Graduate Program Admission Committee (2015)

Chair, UCSD Bioinformatics and Systems Biology Graduate Program Admission Committee (2016)

Chair, UCSD Bioinformatics and Systems Biology Graduate Program Admission Committee (2017)

Chair, UCSD Bioinformatics and Systems Biology Graduate Program Admission Committee (2018)

Co-Organizer (with Prashant Mali) for IGM Symposium, Genome and Transcriptome Engineering at UCSD (2018)

UCSD ORU 5-year review committee chair (2018)

Chair, UCSD Bioinformatics and Systems Biology Graduate Program Admission Committee (2019)

UCSD Bioinformatics and Systems Biology Graduate Program Bioinformatics Steering Committee (2019)

Co-Director, Bioinformatics and Systems Biology Graduate Program (2019-current)

Member, Bioinformatics and Systems Biology Graduate Program DEI committee (2020-current)

Initiated SCREEN (San Diego Covid Research and Enterprise Network) and member of SEARCH (2020)

UCSD Health Sciences Return To Learn Taskforce (2020)

Initiated Diversity and Science Lecture (DASL) series (2020)

Member of the search committee for the Chair of Pharmacology at UCSD, chaired by Susan Ackerman (2020)

Member of the search committee for Assistant/Associate faculty position at OB/GY at UCSD, chaired by Louise Laurent (2020)

Co-chair, Systems Biology and Data Science Research Area of Biomedical Sciences Graduate Program (2018,2019,2020)

SPAC advisor (since 2009)

Co-Director, EXCITE Laboratory (for Return-to-Learn program at UCSD) (2020)

Co-Organizer and Moderator, ASHG Session "Advances in Functional Transcriptomics: Linking Genetic Variation to RNA Processing" (Oct 30, 2020)

Organizing committee member, Institute for Genomic Medicine's annual ASHG Satellite Conference on "Spatial Omics" (2020) Organizer, Nature Conference "RNA at the Bench and Bedside II" (2020)

UCSD Rady School of Management Industry Research Task Force (Feb, 2021) Sanford Consortium for Regenerative Medicine Scientific Space Committee, Member (2017, 2018) Sanford Consortium for Regenerative Medicine Scientific Space Committee, Chair (2019, 2020, 2021) Sanford Consortium for Regenerative Medicine Scientific Steering Committee Member (2019, 2020, 2021) Sanford Consortium for Regenerative Medicine Scientific Steering Committee Deputy Chair to Larry Goldstein (2021) UCSD Big Idea Advisory Committee member. This is a new university-wide advisory committee focused on ideas with transformational societal impact and to bring significant private funding to the university, invited by Chancellor Khosla and Vice Chancellor Sandra Brown (2021)UCSD School of Medicine Leadership Team to help strategic planning for research efforts, chaired by Susan Ackerman (2021). Vice Chancellor for Health Sciences Search Committee Member (2022) Advanced Cell Therapy Review Committee Member (2022-2023) Led formation and organization of planning committee for CZ Biohub at San Diego (2022) Structural Functional Genomics Retreat Speaker/Selection committee (2023) REVIEWER FOR GRANTS AND FELLOWSHIPS (NATIONAL AND INTERNATIONAL) Ad Hoc Grant Reviewer, NIH/NSF, Collaborative Research in Computational Neuroscience (2008-09) Ad Hoc Grant Reviewer, Israel Science Foundation (2008) NIH reviewer for ZRG1 MOSS K(02) Special Emphasis Panel (2010) Ad Hoc reviewer for GCAT (Genomics, Computational Biology and Technology) study section meeting (2010) Invited reviewer for European Research Council (2010) Ad Hoc reviewer for NIH/NHLBI SBIR (2012) Ad Hoc reviewer for MNG study section (2012, June, Sept) Grant reviewer for Pinses Beatrix Fonds, The Netherlands Grant reviewer for INSERM, France Ad Hoc reviewer for GCAT study section (2012, Oct) Grant reviewer for MNG study section (2013, Feb) Grant reviewer for American Heart Association (2013, April) Grant reviewer for Israel Science Foundation (2013) Training Grant reviewer for CIRM predoc/clinical fellows (2013, May) Grant reviewer for NIH K99 grants (2013, June) Grant reviewer for MNG study section (2014, Feb) Grant reviewer for GGG study section (2014, March) Grant reviewer for MNG study section (2015, Feb, Co-chair) Grant reviewer for MND association (2015, April) Grant reviewer for MNG study section (2015, June, Co-chair) Grant reviewer for MNG study section (2015, October, Co-chair) Grant reviewer for Israel Science Foundation (2016) Grant reviewer for MNG study section (2016, Feb, Co-chair) Grant reviewer for MNG study section (2016, June, Co-chair) Grant reviewer for MNG study section (2016, October, Chair) Grant reviewer for National Research Foundation, Singapore, CRP (2016, July) Grant reviewer for MNG study section (2017, Feb, Chair) Grant reviewer for MNG study section (2017, June, Chair) National Cancer Institute Genetics Branch Intramural Review (2017, November, Reviewer) Grant reviewer for MNG study section (2017, Sept. Chair) Grant reviewer for MNG study section (2018, Feb, Chair) Grant reviewer for Carver Trust Foundation (2018, April) Grant reviewer for Motor Neurone Disease Association (2018, April) Grant review for MRC (2018, April) Grant reviewer for GGG study section (Somatic Cell Genome Engineering) "Expanding the human genome editing repertoire" (2018, May 24) Grant reviewer for MNG study section (2018, June, Chair) Grant reviewer for ZRG1 GGG-P (70) study section: "Expanding the human genome editing repertoire" (2019, March 8) Grant reviewer for ZRG1 GGG-B (70) study section: "Human genome editing tools and platforms to evaluate adverse effects (2019, March 8) Grant reviewer for NINDS ZNS1 SRB-A(28) study section (2019, Oct 31) Grant reviewer for NHGRI GNOM-G study section: CEGS (2019, Nov 7) Grant reviewer for NIMH U19 review (2021, July 28) Grant reviewer for ZRG1 BCMB-D, RM1 grants (2021, Oct 22) External Advisory Board for FunGen-AD (2022, April 7) Reviewer for NCI Laboratory of Receptor Biology and Gene Expression Site Visit (2022, Nov 14-16) NIH Functional Genomics AD-2 Annual Meeting, External Advisory Board (2023, May 3)

PROFESSIONAL ROLES IN JOURNAL REVIEWS

Guest Editor, PLoS Genetics (2011) Editorial Board, Cell Reports (2011-current) Editorial Board, Cell Research (2014-current) Guest Editor, Elife (2015) Editor, Elife (2019)

TEACHING

Active Reviewer (40-80 manuscripts reviewed a year) for Nature, Science, Cell, ELife, Nature Structural & Molecular Biology, Nature Methods, Nature Cell Biology, Nature Biotechnology, Molecular Cell, Cell Stem Cell, Cancer Cell, Cell Reports, Neuron, Genes and Development, PLoS One, PLoS Biology, PLoS Computational Biology, PLoS Genetics, PNAS, Nucleic Acids Research, Genome Research, RNA, Genome Biology, BMC Bioinformatics, Applied Bioinformatics, Bioinformatics, Molecular Biology and Evolution, Nature Review Genetics, Molecular Cell Biology, EMBO Molecular Medicine, Human Molecular Genetics, JoVE

University of Illinois, Urbana-Champaign, Chemical Engineering Teaching Assistant Mass Transfer. Conducted discussion sections on diffusion, mass transfer coefficients, heat and mass transfer, distillation and absorption, membrane separations, and chemical reactions in mass transfer.	1997
Northeastern University, Bioinformatics Essentials Graduate Certification Course Lecturer Structured course syllabus and co-taught a 12 week course in microarray data analysis, including classification, feature selection, experimental design, Bayesian networks and microarray technology.	2001
Massachusetts Institute of Technology Teaching Assistant Course 9.02 (Brain Laboratory), 9.00 (Psychology), 9.35 (Vision)	2002-2004
<b>University of California, San Diego</b> Lecturer in BGGN220 (Graduate Molecular Biology) organized by Amy Pasquinelli.	2007, 2008
University of California, San Diego Lecturer in BGGN231. Current Concepts in Stem Cell Biology organized by Karl Willert (Winter 2009)	Winter 2009
University of California, San Diego Lecturer (Four 3-hour lectures) in BIOM 262 Quantitative Methods in Genetics organized by Bruce Hamilton (Spring 2009) Lecturer in BIOM 252 (3 hours) Human Genetics and Genomics organized by Frank Funari (Spring 2009)	Spring 2009
University of California, San Diego Lecturer (Ten 1-hour group discussions) in BIOM 201 Seminars in Biomedical Research organized by Seth Field (Fall 2009) Lecturer in BGGN220 (Graduate Molecular Biology) organized by Amy Pasquinelli (Fall 2009)	Fall 2009
University of California, San Diego Lecturer (Four 3-hour lectures) in BIOM 262 Quantitative Methods in Genetics organized by Bruce Hamilton (Winter 2010)	Winter 2010
University of California, San Diego Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2010) Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and Bing Ren) (Spring 2010)	Spring 2010

University of California, San Diego Lecturer (Two 2-hour lectures) in BIOM 200 BMS Graduate Core Course (directors: Karen Oegema and Dwayne Stupack) (Fall 2010) Lecturer (Ten 1-hour group discussions) in BIOM 201 Seminars in Biomedical Research organized by Seth Field (Fall 2010) Lecturer in BGGN220 (Graduate Molecular Biology) organized by Jens Lykke-Anderson (Fall 2010)	Fall 2010
University of California, San Diego Lecturer (Four 3-hour lectures) in BIOM 262 Quantitative Methods in Genetics organized by Bruce Hamilton (Winter 2011) <u>Course Director</u> and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and Gene Yeo) (Winter 2011)	Winter 2011
University of California, San Diego Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2011)	Spring 2011
University of California, San Diego Lecturer (4.5 hours) in BGGN 220 Graduate Molecular Biology organized by Jens Lykke-Anderson (Fall 2011) Lecturer (Ten 1-hour group discussions) in BIOM 201 Seminars in Biomedical Research organized by Seth Field (Fall 2011) Lecturer (Two 2-hour lectures) in BIOM 200 BMS Graduate Core Course (directors: Karen Oegema and Dwayne Stupack) (Fall 2011)	Fall 2011
University of California, San Diego Lead (5 hours) Small Literature Group for Foundations of Human Biology organized by Connie Holm (Fall 2011)	Fall 2011
University of California, San Diego Lecturer (Four 3-hour lectures) in BIOM 262 Quantitative Methods in Genetics organized by Bruce Hamilton (Winter 2012) <u>Course Director</u> and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and Gene Yeo) (Winter 2012) Lecturer in BISP194 2.5 hours (director: Al La Spada) (Winter 2012)	Winter 2012
University of California, San Diego Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2012)	Spring 2012
University of California, San Diego Lecturer (4.5 hours) in BGGN 220 Graduate Molecular Biology organized by Jens Lykke-Anderson (Fall 2012)	Fall 2012
University of California, San Diego Lecturer (Four 3-hour lectures) in BIOM 262 Quantitative Methods in Genetics organized by Bruce Hamilton (Winter 2013) Course Director and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and Gene Yeo) (Winter 2013) Lecturer in BISP194 2.5 hours (director: Al La Spada) (Winter 2013)	Winter 2013
University of California, San Diego Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2013)	Spring 2013
University of California, San Diego Lecturer (4.5 hours) in BGGN 220 Graduate Molecular Biology organized by Emily Troemel (Fall 2013)	Fall 2013

University of California, San Diego Lecturer (Four 3-hour lectures) in BIOM 262 Quantitative Methods in Genetics organized by Bruce Hamilton (Winter 2014) Course Director and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and Gene Yeo) (Winter 2014) Lecturer in BISP194 2.5 hours (director: Al La Spada) (Winter 2014)	Winter 2014
<b>University of California, San Diego</b> Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2014)	Spring 2014
University of California, San Diego Lecturer (1.5 hours) in BGGN 220 Graduate Molecular Biology organized by Jens Lykke-Andersen (Fall 2014)	Fall 2014
University of California, San Diego <u>Course Director</u> (10 weeks of 6-hour lectures a week) and Lecturer (for 2 weeks) in BIOM 262 Quantitative Methods in Genetics (Winter 2015) Lecturer (1.5 hours) in NEU221 Advanced Topics in Neuroscience (Winter 2015) directed by Thomas Hnasko Course Director and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors:	Winter 2015
University of California, San Diego Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2015)	Spring 2015
University of California, San Diego Lecturer (4 hours) + Paper Discussion (2 hours) in BIOM 200 BMS Graduate Core Course organized by Kevin Corbett and Alysson Muotri (Fall 2015)	Fall 2015
University of California, San Diego <u>Course Director</u> (10 weeks of 6-hour lectures a week) and Lecturer (for 3 weeks) in BIOM 262 Quantitative	Winter 2016
Methods in Genetics (Winter 2016)	
Methods in Genetics (Winter 2016) Course Director and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and <u>Gene Yeo</u> )	
Course Director and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors:	Spring 2016
Course Director and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and <u>Gene Yeo</u> ) <b>University of California, San Diego</b>	Spring 2016 June 2016
Course Director and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and <u>Gene Yeo</u> ) University of California, San Diego Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2016) Cold Spring Harbor Laboratory, Single Cell Analysis Course June 7-17, 2016. Co-course director, assisted by Olga Botvinnik and Yan Song (https://github.com/YeoLab/	
Course Director and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and <u>Gene Yeo</u> ) University of California, San Diego Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2016) Cold Spring Harbor Laboratory, Single Cell Analysis Course June 7-17, 2016. Co-course director, assisted by Olga Botvinnik and Yan Song (https://github.com/YeoLab/ single-cell-bioinformatics) University of California, San Diego	June 2016

University of California, San Diego <u>Course Director</u> (10 weeks of 6-hour lectures a week) and Lecturer (for 2 weeks) in BIOM 262 Quantitative Methods in Genetics <u>Course Director</u> and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and Gene Yeo)	Winter 2017
Cold Spring Harbor Laboratory, Single Cell Analysis Course June 30-July 13, 2017. Co-course director, assisted by Olga Botvinnik, Emily Wheeler, Alain Domissy (https://github.com/olgabot/cshl-singlecell-2017)	July 2017
University of California, San Diego Lecturer (1.5 hours) in BGGN 220 Graduate Molecular Biology organized by Jens Lykke- Andersen	Fall 2017
University of California, San Diego <u>Course Director</u> (10 weeks of 6-hour lectures a week) in CMM262 Quantitative Methods in Genetics <u>Course Director</u> and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and Gene Yeo)	Winter 2018
Cold Spring Harbor Laboratory, Single Cell Analysis Course June 29-July 14, 2018. Co-course director, teaching assistants Emily Wheeler, Alex Chaim, Brain Yee ( <u>https://github.com/ecwheele/CSHL_singlecellanalyses_2018</u> )	July 2018
University of California, San Diego <u>Course Director</u> (with Alon Goren; 10 weeks of 6-hour lectures a week) in CMM262 Quantitative Methods in Genetics	Winter 2019
Cold Spring Harbor Laboratory, Single Cell Analysis Course June 28-July 13, 2019. Co-course director, teaching assistants Brian Yee, Shashank Sathe, Noorsher Ahmed, Yan Song ( <u>https://meetings.cshl.edu/courses.aspx?course=C-SINGLE&amp;year=19</u> )	July 2019
University of California, San Diego Lecturer (2 hours) in BIOM 200 BMS Graduate Core Course organized by Wendy Huang (Fall 2019)	Fall 2019
University of California, San Diego <u>Co-Course Director</u> with Alon Goren (10 weeks of 6-hour lectures a week) in CMM262 Quantitative Methods in Genetics (administrative role) <u>Co-Course Director</u> with Chris Benner (10 weeks of 6-hour lectures a week) in BIOM200C Introduction to Computational Biology	Winter 2020
University of California, San Diego Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Kelly Frazer and Radha Ayyagari	Spring 2020
University of California, San Diego Lecturer (2 hours) in BIOM 200 BMS Graduate Course organized by Wendy Huang	Fall 2020

<b>University of California, San Diego</b> Panelist (2 hours) in PHAR234: Careers in Biomedical Sciences	Spring 2021
University of California, San Diego Lecturer (2 hours) in BIOM 200 BMS Graduate Course organized by Wendy Huang	Fall 2021
University of California, San Diego Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Furnari and Radha Ayyagari	Spring 2022
University of California, San Diego Lecturer (2 hours) in BIOM 200 BMS Graduate Course organized by Wendy Huang	Fall 2022
University of California, San Diego Lecturer (2 hours) in BIOM 200 BMS Graduate Course organized by Roger Sunahara and Phil Gordt	Fall 2023

### **REFEREED PUBLICATIONS (CHRONOLOGICAL ORDER)**

- 1. Rifkin R, Yeo, G and Poggio T. Regularized Least-squares Classification. *Advances in Learning Theory: Methods, Model and Applications, NATO Science Series III: Computer and System Sciences*, 2003; Vol. 190.
- Eng L, Coutinho G, Nahas S, Yeo G, Tanouye R, Drk T, Burge CB and Gatti RA. Non-classical splicing mutations in the coding and non-coding regions of the ATM gene: a comparison of cDNA with maximum entropy estimates of splice junction strengths. *Human Mutation*, 2004; 23(1), 67-76. PMID: 14695534.
- Yeo G, and Burge, CB. Maximum entropy modeling of short sequence motifs with applications to RNA splicing signals. *Proceedings of the Seventh Annual International Conference on Research in Computational Molecular Biology*, 2003; April 10-13.
- 4. Yeo G and Burge C. Maximum entropy modeling of short sequence motifs with applications to RNA splicing signals. *Journal of Computational Biology*, 2004; 11(2-3):377-94. PMID: 15285897.
- 5. Fairbrother WG, **Yeo**, **G**, Yeh, R, Goldstein, P, Mawson, M, Sharp PA, Burge CB. RESCUE-ESE identifies candidate exonic splicing enhancers in vertebrate exons. *Nucleic Acids Res*, 2004. PMID: 15215377.
- 6. Yeo G, Hoon S, Venkatesh B, and Burge C.B. Variation in the splicing regulatory elements and their organization in vertebrate genomes. *Proceedings of the National Academy of Sciences, USA*, 2004. PMID: 15505203.
- 7. **Yeo G**, Holste D, Kreiman G, Burge CB. Variation in alternative splicing across human tissues. *Genome Biol.* 2004; 5(10):R74. PMID: 15461793.
- 8. Wang Z, Rolish ME, **Yeo G**, Tung V, Mawson M, Burge CB. Systematic identification and analysis of exonic splicing silencers. *Cell*. 2004. Dec 17; 119(6):831-45. PMID: 15607979.
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  \*Corresponding.
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- 11. Stadler MB, Shomron N, Yeo GW, Schneider A, Xiao X, Burge CB. Inference of splicing regulatory activities by sequence neighborhood analysis. *PLoS Genetics*. 2006. Nov 24; 2(11):e191. PMID: 17121466. (*Recommended by Faculty 1000*).

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- 13. Giorgi C, **Yeo G**, Stone ME, Katz DB, Burge C, Turrigiano C, Moore MJ. The EJC factor eIF4AIII modulates synaptic strength and neuronal protein expression. *Cell*. 2007. Jul 13;130(1):179-91. PMID: 17632064.
- 14. Yeo G\*, Van Nostrand EL, Liang TY. Discovery and analysis of evolutionarily conserved intronic splicing regulatory elements in mammalian genomes. *PLoS Genetics*. 2007. May 25;3(5):e85. PMID: 17530930. \*Corresponding.
- Yeo G\*, Xu X-D, Liang YT, Muotri AM, Carson C, Coufal N, Gage FH\*. Alternative events Identified in Human embryonic stem cells and neural progenitors. *PLoS Computational Biology*, 2007. Oct;3(10):1951-67. Epub 2007 Aug 24. PMID: 17967047.
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- 27. Marchetto MCN, **Yeo GW**, Kainohana O, Marsala M, Gage FH, Muotri AR. Transcriptional Signature and Memory Retention of Human-Induced Pluripotent Stem Cells. *PLoS ONE*, 2009. 4(9):e7076. PMID: 19763270.
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- 19. Brannan KW and Yeo GW. From Protein-RNA Predictions toward a Peptide-RNA Code. Molecular Cell. 2016. PMID:27814488
- 20. Einstein JM and **Yeo GW.** Making the cut in the dark genome: CRISPR screens will reveal important regulatory elements in the noncoding genome. *Science*. 2016. PMID:27846591
- 21. Wheeler EC, Van Nostrand EL, **Yeo GW**. Advances and challenges in the detection of transcriptome-wide protein-RNA interactions. *Wiley Interdisciplinary Reviews: RNA*. 2017. PMID: 28853213.
- 22. Kapeli K, Martinez FJ, **Yeo GW**. Genetic mutations in RNA-binding proteins and their roles in ALS. *Human Molecular Genetics*. 2017. PMID:28762175
- 23. Nussbacher JK, Tabet R, **Yeo GW**\*, Lagier-Tourenne C\*. Disruption of RNA metabolism in neurological diseases and emerging therapeutic interventions. *Neuron*, 2019. (\*Corresponding) PMID:30998900
- 24. Smargon AS, Shi YJ, **Yeo GW**. RNA-targeting CRISPR systems from metagenomic discovery to transcriptomic engineering. *Nature Cell Biology*, 2020. PMID:32015437
- 25. Corley M, Burns MC, **Yeo GW**. How RNA binding proteins interact with RNA: molecules and mechanisms. *Molecular Cell*, 2020. PMID:32243832
- 26. Porto EM, Komor AC, Slaymaker IM, **Yeo GW**. Base editing: advances and therapeutic opportunities. *Nature Drug Discovery Reviews*, 2020. PMID:33077937
- 27. Schwartz JL, Jones KL, **Yeo GW**. Repeat RNA expansion disorders of the nervous system: post-transcriptional mechanisms and therapeutic strategies. *Critical Reviews in Biochemistry and Molecular Biology*, 2020. PMID: 33172304
- Elmsauri S, Markmiller S, Yeo GW. APEX Proximity Labeling of Stress Granule Proteins. *Methods Mol Biol.* 2022. PMID: 35171492
- 29. Le P, Ahmed N, Yeo GW. Illuminating RNA biology through imaging. Nature Cell Biology. 2022
- 30. Rhine K, Al-Azzam N, Yu T, **Yeo GW**. Aging RNA granule dynamics in neurodegeneration. *Frontiers in Molecular Biosciences*, 2022.
- 31. Morelli KH, Smargon AA, Yeo GW. Programmable macromolecule-based RNA-targeting therapies to treat human neurological disorders. *RNA*. 2023. PMID: 36693761.

#### BOOKS PUBLISHED (CHRONOLOGICAL ORDER)

- i. Yeo GW, Editor, Systems Biology of RNA binding proteins. *Advances in Experimental Medicine and Biology*. Volume 825, *Springer*, 2014.
- Yeo GW, Editor, RNA processing: Disease and genome-wide probing. *Advances in Experimental Medicine and Biology*. Volume 907, *Springer*, 2016.

#### **INVENTIONS (SELECTED)**

US Patent application "Tracking and manipulating cellular RNA via nuclear delivery of CRISPR/Cas9" 15/359567, Filed November 22, 2016

### INVITED TALKS/ CONFERENCE PRESENTATIONS (CHRONOLOGICAL ORDER)

- 1. RECOMB 2003: Seventh annual international conference on research in computational molecular biology, April 10-13, Berlin, Germany, 2003. Yeo, G, and Burge, C.B. Maximum entropy modeling of short sequence motifs with applications to RNA splicing signals (SELECTED TALK).
- 2. ISMB 2003: Intelligent systems for molecular biology conference, June 29-July 3, Brisbane, Australia, 2003. Yeo, G, Hoon, S and Burge C. Genomics of vertebrate splicing regulatory elements (BEST POSTER AWARD).
- 3. Eukaryotic mRNA processing meeting, Aug 20-24, Cold Spring Harbor Laboratory, 2003. Yeo, G, Hoon, S and Burge C. Variation in sequence and organization of splicing regulatory elements in vertebrate genes (POSTER).
- 4. RNA 2004: Ninth annual meeting of the RNA society, June 1-6, Madison, Wisconsin, 2004. Yeo, G, Holste D, Van Nostrand, E, Poggio, T and Burge, C.B. Predictive discrimination of conserved skipping events in human and mouse (SELECTED TALK).
- 5. SFN 2004: Society for Neuroscience, San Diego, 2004. Yeo, G, Van Nostrand, E, Holste D, Poggio, T and Burge, C.B. Predictive identification of alternative exons in mammals reveals neural-specific and RNA binding functions (POSTER).
- 6. Alternative Splicing Special Interest Group Meeting at Intelligent systems for molecular biology (ISMB), 2005. Identification and analysis of alternative splicing events conserved in human and mouse (INVITED TALK).
- 7. Regulatory RNAs, May 31-June 5, Cold Spring Harbor Laboratory, 2006. Rest-regulated MicroRNAs (POSTER).
- 8. RNA Society 2006. Highly conserved intronic elements proximal to mammalian exons predict tissue-specificity of alternatively spliced exons (POSTER).
- 9. RNA Society 2006. Identification of REST/NRSF regulated MicroRNAs (SELECTED TALK).
- 10. Alternative Splicing, Beyond Genome 2007. Intronic splicing regulatory elements in mammalian genomes and alternative splicing in stem cell differentiation (INVITED TALK).
- 6<sup>th</sup> International Conference on Computational Systems Bioinformatics (CSB2007) sponsored by Life Sciences Society. Workshop on Alternative Splicing, 17<sup>th</sup> August, UCSD, 2007. Discovery of intronic regulatory elements in mammalian genomes (INVITED TALK).
- 12. Eukaryotic mRNA Processing Meeting, Aug 22-26, Cold Spring Harbor Laboratory, 2007 (SELECTED TALK).
- 13. The Stem Cell Meeting on the Mesa, Oct 19, Salk Institute, 2007. Small RNA analysis of neural differentiation from human ES cells (INVITED TALK).
- 14. Stower's Institute, Jan 28. Splicing bits and bytes (INVITED TALK).
- 15. Human Genetics Seminar, co-sponsored by CCMB and Human Genetics, University of Michigan, Ann Arbor, Feb 25, 2008. Uncovering the Splicing Code, and Alternative splicing in ES cells (INVITED TALK).
- 16. Genetics and Genomics Lecture Series, Department of Medicine, UCSD, March 6, 2008. Uncovering the Splicing Code, and Alternative splicing in ES cells (INVITED TALK).
- 17. Seminar in the Dept of Bioengineering and the Whitaker Institute of Biomedical Engineering, UCSD, March 7, 2008. Small RNA analysis in Stem Cells (INVITED TALK).
- 18. University of Massachusetts, Medical School Invited Talk, March 10, 2008. Uncovering the Splicing Code, and Alternative splicing in ES cells (INVITED TALK).
- 19. Keystone Conference on RNAi and non-coding RNAs, Whistler, Canada, March 25-30, 2008. Analysis of small RNAs in stem cells (INVITED TALK).
- 20. University of California, Los Angeles, Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research. Uncovering the Splicing Code and Alternative splicing in stem cells (INVITED TALK).
- 21. RNA Society 2008. CLIP-Seq reveals a network of FOX2 regulated alternatively spliced exons in human embryonic stem cells (SELECTED TALK).
- 22. RNA Society 2008. Global analysis of small RNAs during neural specification of human embryonic stem cells (SELECTED TALK).
- 23. National University of Singapore, Department of Biological Sciences, hosted by Paul Matsudaira, April 15, 2009. Comprehensive identification of endogenous Argonaute binding sites in animals (INVITED TALK).
- 24. Institute of Genomic Medicine Symposium, June 3, 2009 Comprehensive identification of endogenous Argonaute binding sites in animals (INVITED TALK).
- 25. 16th Conversation, Albany, 2009. Alternative splicing and stem cells (INVITED TALK).
- 26. Alternative Splicing Special Interest Group Meeting at ISMB 2009 (Stockholm). Intelligent systems for molecular biology conference, 2009 Analysis of RNA binding networks (DISTINGUISHED SPEAKER).
- 27. Eukaryotic mRNA Processing Meeting, Aug18-Aug 22, Cold Spring Harbor Laboratory, 2009 (SELECTED TALK).
- 28. San Diego Consortium for Systems Biology (SDCSB) Next-Gen Sequencing Workshop, Aug 25, 2009 (INVITED TALK)
- 29. Keystone Conference on RNA Silencing: Mechanism, Biology and Application, Keystone, Colorado, Jan 14-19, 2010 (INVITED TALK)
- 30. Alternative Splicing in Neurodegenerative Diseases and Cancer, Tel Aviv, Israel, Feb 7-9, 2010 (INVITED TALK)
- 31. UCLA Bioinformatics Series Invited Speaker April 5, 2010 (INVITED TALK)
- 32. UCSD Physics of Evolution Series, August 21-Sept 2, 2010 (INVITED TALK)
- 33. From the RNA world to the Clinic, Janelia Farms, Sept 26-29, 2010 (INVITED TALK)
- 34. XVIII World Congress on Psychiatric Genetics, Athens, Greece, October 3-7, 2010 (1 INVITED TALK, 1 SELECTED TALK)
- 35. Institute for Genomic Medicine, October 11, 2010 (INVITED TALK)
- 36. First Workshop of the Postgraduate Program of the Genetics Department, Ribeirao Preto, Brazil, November 26-27, 2010 (KEYNOTE SPEAKER)
- 37. Integrated Biological Systems Seminar, Scripps Translational Science Institute, Feb 15, 2011 (INVITED TALK)

- 38. Cambridge HealthTech, XGEN Congress, San Diego, March 17, 2011 (INVITED TALK)
- 39. Genomics Institute of Norvatis, La Jolla, March 18, 2011 (INVITED TALK)
- 40. 42<sup>nd</sup> Annual Meeting, American Society for Neurochemistry, March 19-23, 2011 (INVITED TALK)
- 41. Invited Seminar, Department of Human Genetics, University of Chicago, April 8, 2011 (INVITED TALK)
- 42. Workshop organized by the French National Research Agency (ANR) and California Institute for Regenerative Medicine (CIRM), July 12-13, 2011 (INVITED TALK)
- 43. Alternative Splicing Special Interest Group Meeting at ISMB July 15-16, 2011 (Vienna). Intelligent systems for molecular biology conference, 2011 (INVITED SPEAKER).
- 44. Merck-Serono, NeuroDegenerative Diseases, 19 July, 2011 (INVITED SPEAKER)
- 45. Roche, Basel, 22 July, 2011 (INVITED SPEAKER)
- 46. Eukaryotic mRNA processing meeting, Aug 23-27, Cold Spring Harbor Laboratory, 2011 (POSTER).
- 47. CONNECT's Frontiers in Science and Technology, Oct 11, 2011 (INVITED SPEAKER).
- 48. 6th Brain Research Conference, Nov 10-11, 2011 (INVITED SPEAKER).
- 49. Biochemistry and Molecular Biology Fall Seminar Series, University of Texas, Medical Branch, Dec 8, 2011 (INVITED SPEAKER)
- 50. Gladstone Institute for Cardiovascular Disease Seminar, Jan 9, 2012 (INVITED SPEAKER)
- 51. Socal Stem Cell Symposium, Sanford-Burnham Institute, Jan 12, 2012 (INVITED SPEAKER)
- 52. John Hopkins Bloomberg School of Public Health BMB Seminar, April 30, 2012 (INVITED SPEAKER)
- 53. Robert Packard Center for ALS Research at John Hopkins, June 15, 2012 (INVITED SPEAKER)
- 54. Alternative Splicing Special Interest Group Meeting at ISMB July 13-14, 2012 (Long Beach, USA). Intelligent systems for molecular biology conference, 2012 (SELECTED TALK).
- 55. Gordon Research Conference in Post-transcriptional gene regulation meeting, July 15-20, 2012 (Rhode Island) (INVITED SPEAKER)
- 56. University of Nebraska Medical Center, Omaha, Department of Pharmacology and Experimental Neuroscience Seminar Series, July 27, 2012 (STUDENT INVITED SPEAKER)
- 57. University of Pennsylvania, Pittsburgh, Penn Bioinformatics Forum, 19 Sept, 2012 (STUDENT INVITED SPEAKER)
- 58. Achievement Rewards for College Scientists, Sanford Consortium for Regenerative Medicine, Sept 24, 2012 (INVITED SPEAKER)
- 59. University of North Carolina, Chapel Hill, Department of Pharmacology Seminar Series, Oct 16, 2012 (INVITED SPEAKER)
- 60. Congenital Cytomegalovirus Conference, Nov 1, 2012 (INVITED SPEAKER)
- 61. Yong Loo Lin School of Medicine Dept of Physiology, National University of Singapore, Jan 4, 2013 (INVITED SPEAKER)
- 62. University of Medicine and Dentistry of New Jersey, Jan 24, 2013 (INVITED SPEAKER)
- 63. Academic Leadership Symposium, Sanford Consortium for Regenerative Medicine, Feb 23, 2013 (INVITED SPEAKER)
- 64. Infectious Disease Journal Club, Department of Medicine, Yong Loo Lin School of Medicine, National University of Singapore, Mar 19, 2013 (INVITED SPEAKER)
- 65. Seminar, Genome Institute of Singapore, Biopolis, Singapore, Mar 21, 2013 (INVITED SPEAKER)
- 66. Seminar, Neuroscience Research Program, Biopolis, Singapore, Mar 22, 2013 (INVITED SPEAKER)
- 67. Seminar, School of Biological Sciences, Nanyang Technological University, Singapore, Mar 25, 2013 (INVITED SPEAKER)
- 68. Samuel Colella Lecture Series in Neurodegeneration, Pittsburgh Institute for Neurodegenerative Diseases, April 17, 2013 (INVITED SPEAKER)
- 69. Emory University, Department of Pharmacology Speaker Series, May 13, 2013 (INVITED SPEAKER)
- 70. University of Illinois, Urbana-Champaign, Neuroscience Program Seminar Series, Sept 3, 2013 (INVITED SPEAKER)
- 71. Oligonucleotide Therapeutics Society, Naples, Italy, Oct 8, 2013 (INVITED SPEAKER)
- 72. Genentech, Oct 29, 2013 (INVITED SPEAKER)
- 73. University of Southern California Keck School of Medicine Seminar Series, Nov 25, 2013 (INVITED SPEAKER)
- 74. World Stem Cell Summit, Single Cell Panel, Dec 4, 2013 (INVITED SPEAKER)
- 75. 8th biennial Chinese RNA society meeting, April 12, 2014 (INVITED SPEAKER)
- 76. CAS-MPG Partner Institute for Computational Biology, Shanghai Institutes for Biological Sciences, April 14, 2014 (INVITED SPEAKER)
- 77. Quantitative Biology Seminar Series, Cold spring harbor laboratory, April 16, 2014 (INVITED SPEAKER)
- 78. Systems-to-synthesis Symposium hosted by the San Diego Center for Systems Biology, La Jolla, May 2, 2014 (INVITED SPEAKER)
- 79. 7th Annual Genetics Training Program Retreat, La Jolla, May 2, 2014 (INVITED SPEAKER)
- 80. Mini-RNA symposium, IRCM, Montreal, June 3, 2014 (INVITED SPEAKER)
- 81. RNA Society 2014, Quebec City, June 3-8, 2014 (SESSION CHAIR: Emerging and high-throughput techniques)
- 82. Nucleic Acid Research and Discovery Conference, San Diego, June 19-20, 2014 (INVITED SPEAKER)
- 83. Gordon Research Conference in Post-transcriptional gene regulation meeting, July 13-18, 2014 (Rhode Island) (INVITED SPEAKER)
- 84. Advanced Topics in Genomics and Cell Biology, Aug 4-6, 2014, UNICAMP, Campinas, Brazil (INVITED SPEAKER)
- 85. Inauguration ceremony of EPICENTER, Symposium "Biomedical science: a driver of health, wealth and knowledge generation", Aug 11, 2014, Pontificia Universidade Catolica do Parana (PUCPR), Curritiba, Brazil (KEYNOTE SPEAKER and PANELIST)
- 86. Center for RNA biology Seminar Series Speaker, Ohio State University, 9 Sept, 2014 (INVITED SPEAKER)
- 87. NUS-UCSD Inaugural symposium, Singapore, 2-3 Oct, 2014 (SPEAKER AND ORGANIZER)
- 4<sup>th</sup> next generation sequencing and 2<sup>nd</sup> single cell genomics asia congress organized by Oxford Global, Singapore, 7 Oct, 2014 (KEYNOTE SPEAKER)
- 89. National Neuroscience Institute Research Seminar Series, Singapore, 9 Oct 2014 (INVITED SPEAKER)

- 90. ALS Association Investigator Research Workshop, PA 19-22 Oct 2014 (INVITED SPEAKER)
- 91. BaCaTec Wolfgang Summer School Lecture, San Diego, 12 Nov 2014 (INVITED SPEAKER)
- 92. BD Single Cell Genomics Symposium, San Jose, 13 Nov 2014 (INVITED SPEAKER)
- 93. RECOMB/ISCB Conference on Regulatory & Systems Genomics, 9-14 Nov 2014 (KEYNOTE SPEAKER)
- 94. Beckman Seminar Series, City of Hope, 18-19 Jan 2015 (INVITED SPEAKER)
- 95. The Buck Institute for Research on Aging Seminar Series, 23 Jan 2015 (INVITED SPEAKER)
- 96. Fluidigm's event: Beyond Biology's Next Frontier. La Jolla, 11 March 2015 (KEYNOTE SPEAKER)
- 97. Wayne State University School of Medicine Lecture Series, Detroit, 2 April 2015 (INVITED SPEAKER)
- 98. Protein-RNA Workshop hosted by McGill, Bellairs Research Institute, Barbados, 17-22 April 2015 (INVITED SPEAKER)
- 99. Stein Clinical Research Institute, University of California, San Diego, La Jolla, 1 May 2015 (INVITED SPEAKER)
- 100. Microbiology and Molecular Genetics Seminar Speaker, University of California, Irvine, 6 May 2015 (INVITED SPEAKER)
- 101. Advances and challenges in protein-RNA, Banff International Research Station, 7-12 June 2015 (INVITED SPEAKER)
- 102. Single Cell Analysis Course, Cold Spring Harbor Laboratory, 3-16 June 2015 (INVITED SPEAKER)
- 103. UC Santa Cruz COAT RNA Informatics Summer School (LECTURER) and RNA SUMMIT CONFERENCE (INVITED SPEAKER)
- 104. Alnylam Pharmaceuticals, Cambridge, MA, 17 August 2015 (INVITED SPEAKER)
- 105.CECAD Noncode RNA symposium, Cologne, Germany, 24 August 2015 (INVITED SPEAKER)
- 106. University of London, Dept of Neurology, London, 26 August, 2015 (INVITED SPEAKER) hosted by Jernej Ule
- 107. University of London, RNA Club, London, 27 Aug 2015 (INVITED SPEAKER) hosted by Andres Ramos
- 108. Rady School of Management, UCSD, Biotech Demystified Lecture, 14 Sept 2015 (INVITED SPEAKER)
- 109.Bioinformatics Bootcamp, UCSD, 18 Sept 2015 (INVITED SPEAKER)
- 110. Riboclub Conference, Magog, Canada, 22 Sept 2015 (INVITED SPEAKER)
- 111. IRCM, Montreal, Canada, 24 Sept 2015 (INVITED SPEAKER)
- 112. Festival of Genomics, San Mateo, 5 Nov 2015 (INVITED SPEAKER)
- 113. Sixth Annual California ALS Research Summit, La Jolla, 9 Jan 2016 (INVITED SPEAKER)
- 114. Plant and Animal Genome XXIV, Post-transcriptional gene regulation. San Diego, 10 Jan 2016 (INVITED SPEAKER)
- 115. Invitae, San Francisco, 18 Feb, 2016 (INVITED SPEAKER)
- 116. Biomedical Sciences Graduate Program Recruitment, 26 Feb, 2016 (INVITED SPEAKER)
- 117. Lawrence Berkeley National Laboratory, Berkeley, CA, 1 March, 2016 (INVITED SPEAKER)
- 118. 10th St Jude-VIVA Forum in Pediatric Oncology, 6 March, 2016 (INVITED SPEAKER)
- 119. Institute of Molecular, Cellular Biology, A\*STAR, Singapore, 9 March, 2016 (INVITED SPEAKER)
- 120.Physiology Lecture Series Speaker, Department of Physiology, Yong Loo Lin School of Medicine, 18 March, 2016 (INVITED SPEAKER)
- 121. IBS-CNRS Joint RNA Symposium, Hoam Faculty House, Seoul, Korea, 21-22 March, 2016 (INVITED SPEAKER)
- 122. Genetics Institute Series, University of Florida, Gainesville, Florida, 29 March, 2016 (INVITED SPEAKER)
- 123. Inception Sciences, La Jolla, 31 March, 2016 (INVITED SPEAKER)
- 124. Department of Human Genetics and Biochemistry, Tel Aviv University, 7 April, 2016 (INVITED SPEAKER)
- 125.BD Biosciences, La Jolla, 18 April, 2016 (INVITED SPEAKER)
- 126. University of Illinois Alpha Chi Sigma-Zeta Chapter Krug Lecture, 24 April, 2016 (KEYNOTE SPEAKER)
- 127.Biochemistry and Chemical & Biomolecular Engineering co-sponsored lecture, University of Illinois, Urbana-Champaign, 25 April, 2016 (INVITED SPEAKER)
- 128. Synapse to Circuits Club, University of California, Los Angeles, 29 April, 2016 (INVITED SPEAKER)
- 129. Genome Engineering 4.0 Workshop, Broad Institute, 6 -7 May, 2016 (INVITED SPEAKER)
- 130.Biogen, Cambridge, MA, 9 May, 2016 (INVITED SPEAKER)
- 131. Novartis, Cambridge, MA, 9 May, 2016 (INVITED SPEAKER)
- 132. Cell Applications, San Diego, 17 May 2016 (SCIENTIFIC ADVISORY BOARD SPEAKER)
- 133. Single Cell Analysis Course, Cold Spring Harbor Laboratory 7 June, 2016 (INVITED SPEAKER)
- 134. RNA Society, Kyoto, Japan, June 28- July 2, 2016 (WORKSHOP CHAIR: Computational analysis of RNA data)
- 135. SingaRNA Symposium, Singapore, July 5, 2016 (CONFERENCE ORGANIZER)
- 136. California Institute for Regenerative Medicine Bridges Meeting, San Francisco, July 19, 2016 (INVITED SPEAKER)
- 137. Regulus, La Jolla, Aug 26, 2016 (INVITED SPEAKER)
- 138. Institute of Molecular Biology, Academia Sinica, Taipei, Sept 5, 2016 (INVITED SPEAKER)
- 139. RNA biology symposium, NUS, Singapore, 8-9 Sept, 2016 (INVITED SPEAKER)
- 140. Festival of Genomics, San Diego, 21 Sept 2016 (INVITED SPEAKER)
- 141.Genentech, South San Francisco, 22 Sept 2016 (INVITED SPEAKER)
- 142. Special Seminar, UC Berkeley, 23 Sept 2016 (INVITED SPEAKER)
- 143. Advances in Autism Research, MIT Alumni Association, 29 Sept 2016 (INTERVIEW)
- 144. Cell Applications, San Diego, 17 Oct 2016 (SCIENTIFIC ADVISORY BOARD SPEAKER)
- 145. SoCal Stem Cell Symposium, San Diego, 10 Nov 2016 (INVITED SPEAKER)
- 146.Gage Lab Symposium, San Diego, 10-11 Nov 2016 (INVITED SPEAKER)
- 147. Department of Biochemistry Seminar Series, University of Southern California, 14 Nov 2016 (INVITED SPEAKER)
- 148.NIMH Workshop: Using stem cell-based assays for biological and drug discovery, 17-18 Nov 2016 (INVITED SPEAKER)
- 149. CMDB/GGB/MCBL UC Riverside Seminar Program, 30 Nov 2016 (INVITED SPEAKER)
- 150. Denali Therapeutics, San Francisco, 1 Dec 2016 (INVITED SPEAKER)
- 151. American Society of Cell Biology Subgroup Session, 3 Dec 2016 (INVITED SPEAKER)

- 152. Cell Webinar on CRISPR and Imaging, 12 Dec 2016 (INVITED SPEAKER)
- 153.Nugen Technologies, San Carlos, 9 Jan 2017 (INVITED SPEAKER)
- 154. Genomics Institute of the Novartis Foundation, San Diego, 1 Feb 2017 (INVITED SPEAKER)
- 155. Biomedical Sciences Graduate Program Recruitment, UCSD, La Jolla, 3 Feb 2017 (INVITED SPEAKER)
- 156.Keystone Symposia Conference: Protein-RNA Interactions: Scale, Mechanisms, Structure & Function of coding and noncoding RNPs, Banff, Canada, 6 Feb 2017 (<u>ORGANIZER</u> and SPEAKER)
- 157. Academic Leadership Symposium, Sanford Consortium for Regenerative Medicine, Feb 24, 2017 (INVITED SPEAKER)
- 158.Phase Separation and RNA processing as drivers of cancer and neurodegenerative diseases, Sanford Consortium for Regenerative Medicine, Feb 24, 2017 (KEYNOTE SPEAKER)
- 159. Systems biology: global regulation of gene expression, Cold Spring Harbor Laboratory, Feb 26-March 2, 2017 (INVITED SPEAKER AND SESSION CHAIR)
- 160. Carnegie Mellon University Computational Biology Department Seminar Series, Pittsburgh, Mar 3, 2016 (INVITED SPEAKER)
- 161.Baylor College of Medicine, Department of Biochemistry Seminar Series, Houston, Mar 16, 2016 (INVITED SPEAKER)
- 162. Frontiers in Biology, Stanford University, Palo Alto, Mar 22, 2016 (INVITED SPEAKER)
- 163. Gladstone Institute of Neurological Disease Seminar Series, March 23, 2017 (INVITED SPEAKER)
- 164. Moderna Therapeutics, Cambridge, MA, March 27, 2017 (INVITED SPEAKER)
- 165. Neurology Seminar, University of Massachusetts Medical School, MA, March 28, 2017 (INVITED SPEAKER)
- 166. Wave Life Sciences, Belmont, MA, March 29, 2017 (INVITED SPEAKER)
- 167. Regeneron Pharmaceuticals, Tarrytown, NY, March 30, 2017 (INVITED SPEAKER)
- 168. Department of Biological Sciences, Columbia University, NY, April 3, 2017 (INVITED SPEAKER)
- 169. Rutgers New Jersey Medical, NY, April 4, 2017 (INVITED SPEAKER)
- 170. Mount Sinai, Icahn School of Medicine, NY, April 5, 2017 (INVITED SPEAKER)
- 171. Memorial Sloan Kettering, Departmental Biology Seminar Series, NY, April 6, 2017 (INVITED SPEAKER)
- 172. RNA symposium at University of California, Irvine, April 14, 2017 (INVITED SPEAKER)
- 173. Arcturus Pharmaceuticals, La Jolla, April 18, 2017 (INVITED SPEAKER)
- 174. Experimental Biology Meeting Post-transcriptional regulation of intestinal homeostasis: stem cells to cancer, Chicago, April 24, 2017 (INVITED SPEAKER)
- 175. Cleveland Clinic, Cleveland, Ohio, April 26, 2017 (INVITED SPEAKER)
- 176. Case Western Reserve University, RNA center distinguished lecture series, April 27, 2017 (INVITED SPEAKER)
- 177. Illumina User Group Meeting, Hilton Torrey Pines, La Jolla, 24 May, 2017 (INVITED SPEAKER)
- 178.22<sup>nd</sup> Annual RNA Society Meeting, Prague, June 3, 2017 (EARLY CAREER AWARD RECEIPIENT'S TALK)
- 179. Dagstuhl "Computational challenges in RNA-based gene regulation:protein-RNA recognition, regulation and prediction", Germany, June 18-21, 2017 (INVITED SPEAKER)
- 180.Max-Delbruck-Center for Molecular Medicine, BIMSB Seminar Series, Germany, June 22, 2017 (INVITED SPEAKER)
- 181.Max-Delbruck-Center for Molecular Medicine, SysBio lecture series on "Reprogramming, development and genome editing", Germany, June 23, 2017 (INVITED SPEAKER)
- 182.2<sup>nd</sup> International Symposium for Noncoding RNA Neo-Taxonomy, University of Tokyo, Japan, June 26, 2017 (INVITED SPEAKER)
- 183. Naito conference on Non-coding RNAs, Hokkaido, Japan, June 30, 2017 (INVITED SPEAKER)
- 184. Single Cell Analysis Course, Cold Spring Harbor Laboratory, July 3, 2017 (COURSE INSTRUCTOR AND SPEAKER)
- 185. Neuroscience and behavioral disorder seminar series at Duke-NUS Medical School, Aug 3, 2017 (INVITED SPEAKER)
- 186.Otto Warburg International Summer School and Research Symposium on RNA biology, Shanghai, China, Aug 14-18, 2017 (LECTURER AND INVITED SPEAKER)
- 187.Eukaryotic mRNA Processing Meeting, Cold Spring Harbor Laboratory, Aug 22-26, 2017 (SESSION CHAIR & GAVE 2 SELECTED TALKS & 1 POSTER).
- 188. International Myotonic Dystrophy Consortium, San Francisco, Sept 5-9, 2017 (KEYNOTE SPEAKER)
- 189. Science 1st: Designing Nucleic Medicines, JLabs, La Jolla, Sept 13, 2017 (INVITED SPEAKER)
- 190. UCSD Institute for Genomic Medicine Member Meeting, UCSD, La Jolla, Sept 14, 2017 (INVITED SPEAKER)
- 191.Cell Biology Virtual Event, Sept 21, 2017 (INVITED SPEAKER)
- 192.13th Annual meeting of the Oligonucleotide Therapeutics Society, Bordeaux, France, Sept 24-27, 2017 (INVITED SPEAKER)
- 193.3<sup>rd</sup> annual RNA biology symposium by the Cancer science institute at NUS, Singapore, 2017 (CO-ORGANIZER)
- 194.5th annual Single Cell Analysis Asia Congress by Oxford Global, Singapore, October 10-11, 2017 (INVITED SPEAKER)
- 195.UT Southwestern Medical Center's Gene Regulation and Genomics Seminar Series, Dallas, October 16, 2017 (INVITED SPEAKER)
- 196.4<sup>th</sup> Animal Models of Neurodegenerative Diseases, PIGMOD Center, Czech Republic, October 22-24, 2017 (INVITED SPEAKER, ONLINE)
- 197.CZI Science and NYSCF Workshop, New York, October 30-31, 2017 (INVITED SPEAKER)
- 198. American Association of Pharmaceutical Scientists, Challenges and Opportunities for Gene Editing and Delivery, San Diego, Nov 15, 2017 (INVITED SPEAKER)
- 199. UCSD Postdoc Appreciation Luncheon, UCSD, La Jolla, Nov 29, 2017 (KEYNOTE SPEAKER)
- 200.Center for Neurogenetics 3rd International BrainStorm Symposium, University of Florida, Gainesville, Florida, Jan 19, 2018 (INVITED SPEAKER)
- 201.IPSEN sponsored Bridging Biomedical Worlds "Genome Editing: the next Frontier", Biopolis, Singapore, Feb 5-7, 2018 (INVITED SPEAKER)

- 202.Rady School of Management Rady[X] conference on Disruptive Technologies, La Jolla, San Diego, Mar 2, 2018 (KEYNOTE SPEAKER)
- 203. Distinguished Speaker Seminar Series, Perelman School of Medicine, University of Pennsylvania, Mar 19, 2018 (DISTINGUISHED SPEAKER)
- 204. American Society for Neurochemistry, RNA processing and regulation in brain development and disorders, Riverside, Mar 25, 2018 (SPEAKER AND CO-CHAIR)
- 205. San Diego Public Library Lecture Series, La Jolla/Riford Library, April 3, 2018 (INVITED SPEAKER)
- 206. NCCR RNA & Disease Seminar Series, University of Bern, Bern, Switzerland, April 9, 2018 (INVITED SPEAKER)
- 207. Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland, April 10, 2018 (INVITED SPEAKER)
- 208. Biozentrum, University of Basel, Basel, Switzerland, April 11, 2018 (INVITED SPEAKER)
- 209. NCCR RNA & Disease Seminar Series, ETH, Zurich, Switzerland, April 12, 2018 (INVITED SPEAKER)
- 210.ASBMB Experimental Biology Symposium in "RNA in human disease," San Diego Convention Center, San Diego, April 23, 2018 (INVITED SPEAKER)
- 211. Taste of Science, Thorn Street Brewery, San Diego, April 24, 2018 (INVITED SPEAKER)
- 212. Biochemistry Seminar Series, Duke University, North Carolina, April 27, 2018 (INVITED SPEAKER)
- 213. Inaugural Stem Cell mini-symposium by Lee Kong Chian School of Medicine, Singapore, May 22, 2018 (INVITED SPEAKER)
- 214.NUS Physiology Department Science Pitch Day, Singapore, May 25, 2018 (INVITED JUDGE)
- 215. Precision CRISPR stem cell, Seattle, Allen Institute for Cell Science, June 13-14, 2018 (INVITED SPEAKER)
- 216. Takeda Autism Day, Takeda, La Jolla, June 26, 2018 (INVITED SPEAKER)
- 217. RNA Computational Biology Session at ISCB, Chicago, July 8, 2018 (KEYNOTE SPEAKER)
- 218. Blavatnik Science Symposium, 7 World Trade Center, New York, July 16, 17, 2018 (ATTENDED AS HONOREE)
- 219.Gordon Research Conference in Post-transcriptional gene regulation meeting, Sunday River, Portland, ME, July 15-20, 2018 (INVITED SPEAKER)
- 220. Angelman Syndrome/Dup15q Research Symposium, Chapel Hill, North Carolina, Aug 6-7, 2018 (INVITED SPEAKER)
- 221. Ribometrix Scientific Advisory Board Meeting, Durham, North Carolina, Aug 8, 2018 (INVITED SPEAKER)
- 222.Cell Signaling Technologies, Massachusetts, Aug 21, 2018 (INVITED SPEAKER)
- 223. Genome Engineering: The CRISPR-CAS Revolution, Cold Spring Harbor Laboratory, Aug22-Aug 25, 2018 (INVITED SPEAKER).
- 224. Waisman Center Seminar Series, University of Wisconsin, Madison, Sept 7, 2018 (INVITED SPEAKER)
- 225.Genomics Institute of the Novartis Research Foundation Technology Showcase "Targeting RNA", La Jolla, Oct 4, 2018 (INVITED SPEAKER)
- 226.Cancer Cell Biology Training Grant, UCSD, Oct 5, 2018 (INVITED SPEAKER)
- 227. Nature/Ionis Symposium on RNA at the Bench and Bedside, Estancia Hotel, La Jolla, Oct 10, 2018 (INVITED SPEAKER)
- 228. UCSD Neuroscience Seminar Series, Oct 29, 2018 (INVITED SPEAKER)
- 229.5th RNA Metabolism in Neurological Disease Conference, Nov 1, 2018 (INVITED SPEAKER)
- 230. Inside Innovation Seminar Series hosted by UCSD Office of Innovation and Commercialization, Nov 7, 2018 (INVITED SPEAKER)
- 231. Science webinar "Epitranscriptomics: the importance of RNA modifications and RNA binding proteins in disease," Nov 14, 2018 (INVITED SPEAKER)
- 232. CRG Student-invited Seminar Series, Barcelona, Nov 23, 2018 (INVITED SPEAKER)
- 233. Plant and Animal Genome XXVII, Equine Genome. San Diego, 13 Jan, 2019 (KEYNOTE SPEAKER)
- 234. UCSD PRISM (Progress in the Science of Medicine) Lecture Series, UCSD, 11 Feb, 2019 (INVITED SPEAKER)
- 235. Gordon Research Conference, Translation Machinery in Health and Disease, Galveston, 19 Feb 2019 (INVITED SPEAKER)
- 236. University of Chicago, Biological Sciences Seminar Series, Chicago, 13 March 2019 (INVITED SPEAKER)
- 237. Ribometrix Scientific Advisory Board Meeting, Durham, North Carolina, March 25, 2019 (INVITED CONSULTANT)
- 238.MDA 2019 Clinical and Scientific Conference, Orlando, Florida, April 15, 2019 (INVITED SPEAKER AND SESSION CO-CHAIR)
- 239. Nanyang Technology University MBA student Visit, UCSD Rady School of Management, April 25, 2019 (INVITED SPEAKER)
- 240. Sanford Burnham Prebys Graduate Student Retreat, San Diego, May 16, 2019 (KEYNOTE SPEAKER)
- 241. UCSD Neuroscience Graduate Program Spring Retreat, Lake Arrowhead, May 17, 2019 (INVITED SPEAKER)
- 242.24th Annual RNA Society Meeting, Krakow, June 11-16, 2019 (Co-Organizer and Workshop Chair)
- 243.Keystone Symposia "Neurodegenerative diseases: new insights and therapeutic opportunities", Keystone Colorado, June 16-20, 2019 (INVITED SPEAKER)
- 244. RNA therapeutics Meeting, U Mass Medical, June 27-29, 2019 (INVITED SPEAKER)
- 245. Cold Spring Harbor Laboratory Single Cell Analysis Course, July 7, 2019 (CO-COURSE ORGANIZER, INVITED SPEAKER)
- 246. Alzheimer's Association International Conference, Los Angeles Convention Center, July 15, 2019 (INVITED SPEAKER)
- 247. First Singaporean Researchers Global Summit, Singapore, Aug 6, 2019 (ORGANIZER, KEYNOTE SPEAKER)
- 248. Inception, La Jolla Aug 29, 2019 (INVITED SPEAKER)
- 249.Launchbio's Larger than Life Science Leading the Way, "UCSD Spinout success: Locana lighting the way", BioLabs, La Jolla, Aug 29, 2019 (INVITED PANELIST)
- 250. Science Alliance: Silencing Neurodegenerative diseases with Gene Editing, JLabs, La Jolla, Sept 4, 2019 (INVITED SPEAKER)
- 251. Myotonic Annual Conference, Professional Track, Philadelphia, Sept 13, 2019 (INVITED SPEAKER)
- 252. Hogg Seminar Series, MD Anderson, Austin, Sept 25, 2019 (INVITED SPEAKER)
- 253.5<sup>th</sup> RNA Biology Symposium by Cancer Science Institute, NUS, Singapore, Oct 3-4, 2019 (CO-ORGANIZER)
- 254. Institute of Molecular Cell Biology, A\*STAR, Singapore, Oct 9, 2019 (INVITED SPEAKER)
- 255. Genome editing in neurological disease symposium, Children's Hospital of Philadelphia, Oct 14, 2019 (INVITED SPEAKER)
- 256. National Cancer Institute RNA Initiative Seminar Series, Oct 21-22, 2019 (INVITED SPEAKER)

- 257.National Cooperative Reprogrammed Cell Research Groups and Convergent Neuroscience in studies of Mental Illness: Consortium Meeting, Chicago, Oct 23-23, 2019 (INVITED SPEAKER)
- 258.Keystone Conference on Non-coding RNAs: mechanism, function and therapies, Whistler, Canada, Jan 12-17, 2020 (INVITED SPEAKER)
- 259.1<sup>st</sup> international conference on base editing enzymes and applications (Deaminet 2020), Palm Springs, CA, Jan 26, 2020 (INVITED SPEAKER)
- 260. Single Cell Workshop, Sanford Burnham Conrad Prebys Research Institute, Feb 3, 2020 (INVITED SPEAKER)
- 261. UC Davis College of Biological Sciences Joint Seminar Series in Molecular Biology, UC Davis, Feb 11, 2020 (INVITED SPEAKER)
- 262. Dorris Neuroscience Center, Scripps Institute, La Jolla, Feb 18, 2020 (INVITED SPEAKER)
- 263. Regulus, La Jolla, March 3, 2020 (INVITED SPEAKER)
- 264.CHDI, April 3, 2020 (INVITED SPEAKER)
- 265. Biocom's Webinar on Return to Work: Testing Foundations for COVID, June 17, 2020 (INVITED PANELIST)
- 266.CZI Neurodegeneration Challenge Network: Diversity, Equity and Inclusion Keynote Panel, July 14, 2020 (INVITED SPEAKER)
- 267. Rady BioCom Career Panel, July 14, 2020 (INVITED PANELIST)
- 268.CZI Neurodegeneration Challenge Network: CRISPR Breakout Session Leader, July 15, 2020 (INVITED PANELIST)
- 269.Biocom Genomics Webinar to Congressional Staff, including Members of Congress' personal officers and committees of jurisdiction in the House and Senate, July 15, 2020 (INVITED SPEAKER)
- 270. Moores Cancer Center Structural and Functional Genomics Retreat, Virtual Meeting, Sept 17, 2020 (INVITED SPEAKER)
- 271.Columbia University Department of Systems Biology Distinguished Speaker Seminar Series Virtual Meeting, Sept 23, 2020 (INVITED SPEAKER)
- 272. Brandes/Rady Summit:Covid-19, Sept 2, 2020 (INVITED SPEAKER AND PANELIST)
- 273. Supporting Diversity, Inclusion and Equity in Neuroscience, Interview with Katja Brose at CZI, Sept 23,2020 (INVITED PANELIST)
- 274. Virtual 6th Singapore RNA Biology Symposium, Oct 1, 2020 (INVITED SPEAKER AND PANELIST)
- 275. Center for RNA Biomedicine at University of Michigan, Oct 19, 2020 (INVITED SPEAKER)
- 276.Nature Conference "RNA at the Bench and Bedside II," Nov 11-13, 2020 (ORGANIZER, SESSION CHAIR, PANELIST AND KEYNOTE SPEAKER)
- 277. Molecular Medicine Program at SickKids Research Institute, Toronto (Virtual), Nov 30, 2020 (INVITED SPEAKER)
- 278.3rd RNA-Targeted Drug Discovery Summit 2020, Dec 9, 2020 (INVITED SPEAKER AND PANELIST)
- 279.IMPRS-LM Distinguished Guests Seminar Series 2021 at the Max Planck Institute of Molecular Physiology, Feb 23-24, 2021 (INVITED SPEAKER)
- 280.21st Packard Center Research Symposium, March 8, 2021 (INVITED SPEAKER)
- 281.MDA 2021 Virtual Clinical and Scientific Conference, March 15, 2021 (INVITED SPEAKER)
- 282. Targeting RNA Congress, March 16, 2021 (INVITED SPEAKER)
- 283. UCSD Health Sciences Research Council, April 14, 2021 (CO-MODERATOR OF PRECISION MEDICINE TALKS)
- 284. Spatial Biology Europe Online, April 16, 2021 (INVITED SPEAKER AND PANELIST)
- 285. Genomics of Brain Disorder, April 16, 2021 (INVITED SPEAKER AND PANELIST)
- 286. City of Hope Leading Edge Lecture Series The John Rossi Seminar Speaker, May 7, 2021 (INVITED SPEAKER)
- 287. Rady School of Management Innovation Panel Discussion on Passion, Drive & Innovation, May 13, 2021 (INVITED SPEAKER)
- 288. Harvard Medical School Initiative for RNA Medicine Seminar Speaker, May 25, 2021 (INVITED SPEAKER)
- 289.26th RNA Society 2021 Online Meeting, May 25-June 4, 2021 (Lead Organizer, Award Recipient and Speaker, Panel Chair)
- 290. Vertex Pharmaceuticals Science and Medicine Series. 16 June, 2021 (INVITED SPEAKER)
- 291.CZI NDCN Annual Meeting, 23 June, 2021 (INVITED SPEAKER)
- 292. FASEB Protein aggregation Symposium, 23 June, 2021 (INVITED SPEAKER)
- 293. UCSD Department of Pathology Retreat, 21 August, 2021 (KEYNOTE SPEAKER)
- 294. ISSCR/ASGCT Symposium, 13 Sept, 2021 (INVITED SPEAKER/PANELIST)
- 295. James S McDonnell Department of Genetics Spring Seminar Series, Washington University in St. Louis (INVITED SPEAKER)
- 296. Denali Therapeutics Webinar to highlight ALS and FTD Development Programs, Oct 6, 2021 (INVITED SPEAKER/PANELIST)
- 297.Warren Alpert Award Symposium, 7 Oct, 2021 (INVITED SPEAKER, other invited speakers were Phil Sharp, Melissa Moore, honoring Lynne Maquat and Joan Steitz)
- 298.QB3 Seminar Series, 13 Oct 2021 (INVITED SPEAKER)
- 299. Inaugural Sanford Stem Cell Symposium, 15 Oct 2021 (INVITED SPEAKER)
- 300.UC Regents Special Committee on Innovation Transfer & Entrepreneurship. 21 Oct 2021 (INVITED SPEAKER)
- 301. X-Meeting XP Organization, Virtual. 27 Oct 2021 (KEYNOTE SPEAKER)
- 302.NIMH Joint Consortium Meeting for Convergent Neuroscience/NCRCRG/BICCN/PyschENCODE, 3-5 Nov, 2021 (PANEL MODERATOR)
- 303. A\*STAR Scientific Conference celebrating A\*STAR's 30<sup>th</sup> anniversary, 28 Nov, 2021 (INVITED SPEAKER)
- 304. UCLA Neurology Grand Rounds, Jan 12, 2022 (INVITED SPEAKER)
- 305. UCSD Cancer Genomics Meeting, Jan 26, 2022 (INVITED SPEAKER)
- 306.2022 California ALS Research Summit, Jan 28, 2022 (INVITED SPEAKER)
- 307.EMBO course RNA binding proteins: From RNA binding to condensation and aggregation, India, 8-11 Feb, 2022 (INVITED SPEAKER)
- 308. CHDI's annual Huntington's disease therapeutic conference, Palm Springs, March 2, 2022 (INVITED SPEAKER)
- 309. National Center of Leadership in Academic Medicine (NCLAM), March 11, 2022 (INVITED SPEAKER)
- 310. Virtual workshop: Future use and expansion of the SFARI/NLMFF iPS Cell resource, March 18, 2022 (INVITED PANELIST)

- 311. Celebrating the Life and Science of Sydney Brenner (1927-2019), CSHL, March 24, 2022 (INVITED SPEAKER)
- 312. Allen Frontiers Symposium, March 29, 2022 (INVITED SPEAKER as Allen Distinguished Investigator)
- 313. Fireside Chat at UC Merced to talk about entrepreneurship, April 19, 2022
- 314. Drug Discovery Chemistry, San Diego, April 18-21, 2022 (INVITED SPEAKER)
- 315. Precision Genome Engineering, Keystone Conference, April 27-May 1, 2022 (INVITED SPEAKER)
- 316. REVOLUTION 22 (The symposium for CSOs focused on R&D Issues) (INVITED PANELIST)
- 317.USC School of Pharmacy, May 20, 2022 (INVITED SPEAKER)
- 318. Amgen Seminar Series, June 30, 2022 (INVITED SPEAKER)
- 319. CIRM Bridges Trainee Meeting, July 26, 2022 (INVITED SPEAKER)
- 320. Sixth Biennial Meeting of the LARP Society, York University, Toronto, Aug 7, 2022 (KEYNOTE SPEAKER)
- 321. John C. Lee Endowed Lecture UT Health San Antonio, San Antonio, Aug 26, 2022 (INVITED SPEAKER)
- 322. Riboclub Conference, Orford, Canada, 20 Sept 2022 (INVITED SPEAKER)
- 323. Discovery on Target, Oct 18, 2022 (INVITED SPEAKER)
- 324. UC Irvine School of Medicine Department of Microbiology & Molecular Genetics Seminar, Oct 19, 2022 (INVITED SPEAKER)
- 325. University of Texas, Dallas, Department of Biological Sciences, Seminar Series, Oct 27 2022 (INVITED SPEAKER)
- 326. University of California Riverside Center for RNA biology and medicine Inaugural Symposium, Nov 4, 2022 (INVITED SPEAKER) 327. Sacramento State University, Regenerative Medicine Lecture, Nov 9, 2022 (INVITED SPEAKER)
- 328. Nature Bench to Bedside III, Nov 8-10, 2022 (CO-ORGANIZER with Nature Editors and Stan Crooke, and SESSION CHAIR)
- 329. French-American Innovation Days, Clinical Trials In Gene Therapy, Nov 17-18, 2022 (INVITED SPEAKER)
- 330. Levine-Riggs Diabetes Research Symposium Program, Dec 1, 2022 (INVITED SPEAKER)
- 331. CHDI-hosted RNA Workshop, Dec 7-8, 2022 (INVITED SPEAKER AND CHAIR)
- 332. UCSD Board of Trustees, Dec 9, 2022 (INVITED SPEAKER)
- 333. Emerging Science & Innovation Seminar Series, Pfizer, Jan 26, 2023 (INVITED SPEAKER)
- 334.Keystone Symposia Conference: Protein-RNA Interactions, Vancouver, Canada, Jan 29- Feb 1, 2023 (Lead Organizer, Session Chair and INVITED SPEAKER)
- 335. Health Innovation and Translation Symposium, Design and Innovation Building, Feb 11, 2023 (INVITED SPEAKER)
- 336. Mount Sinai GGS Seminar Series, Feb 23, 2023 (INVITED SPEAKER, virtual visit)
- 337. Molecular and Precision Med Tricon by Cambridge Healthtech Institute, San Diego, March 6, 2023 (INVITED SPEAKER)
- 338.National Academies of Sciences, Engineering and Medicine, Toward Sequencing and Mapping for RNA modifications Workshop, Virtual, March 14, 2023 (INVITED SPEAKER AND PANELIST)
- 339. Cold Spring Harbor Laboratory Network Biology Meeting, March 17, 2023 (INVITED SPEAKER)
- 340. Gordon Research Conference on RNA Editing, March 21, 2023 (INVITED SPEAKER)
- 341. Spark Bio Panel for Company Build, March 26, 2023 (INVITED PANELIST)
- 342. UC Merced's 1st Innovation and Entrepreneurship Conference, April 7, 2023 (INVITED SPEAKER AND PANELIST)
- 343. UC Riverside CMDB/GGB/MCBL Seminar Series, April 26, 2023 (INVITED SPEAKER, VIRTUAL)
- 344. Sid Altman's Inaugural Memorial Symposium, May 2, 2023 (INVITED SPEAKER)
- 345.4th Splicing factor mutations and RNA biology in Cancer, New York, May 11, 2023 (KEYNOTE SPEAKER)
- 346. STEP Ahead into an RNA World 2023, May 29-30, 2023 (ORGANIZER and CHAIR)
- 347.A\*STARTCENTRAL Fireside Chat on Entrepreneurship, Singapore. May 31, 2023 (INVITED SPEAKER)
- 348.28th Annual Meeting of the RNA Society 2023. Singapore, June 1, 2023 (INVITED SPEAKER AND CHAIR)
- 349.Advances in Genome Technology Development annual meeting, SCRM, La Jolla, June 6, 2023 (INVITED SPEAKER AND CAREER WORKSHOP MODERATOR)
- 350. Dup15q Alliance 2023 Science Symposium, July 26, 2023 (INVITED SPEAKER, VIRTUAL)
- 351.Nucleate Summit 2023, San Diego, Aug 24, 2023 (INVITED TENT SPEAKER)
- 352.16th Berlin Summer Meeting, MDC celebrates 15 years of BIMSB, Sept 6, 2023 (INVITED SPEAKER, VIRTUAL)
- 353. BMS Computational Biology Track Orientation, UCSD, Sept 19. 2023 (INVITED SPEAKER)
- 354. Global Genes, Rare Disease Summit, San Diego, Sept 20, 2023 (INVITED PANELIST)
- 355.22nd Annual Sanford-Burnham-Prebys Trainee Research Symposium, Sept 21, 2023 (KEYNOTE SPEAKER)
- 356. William Guy Forbeck Research Forum "Therapeutic Targeting of mRNA splicing in cancer", Asilomar, California, Sept 23, 2023 (INVITED SPEAKER)
- 357. Cambridge Innovation Conference on Small Molecules Targeting RNA, Boston, Sept 26, 2023 (INVITED SPEAKER, VIRTUAL)
- 358. Academia Europaea Annual Meeting, Gene presented the Sydney Brenner Medal for achievements in the Life Sciences, Munich, Oct 10, 2023 (Award Recipient and SPEAKER, Presented by Carla Brenner)
- 359.MDC Berlin, Oct 11, 2023 (SAB VISIT and SPEAKER)

360.7th New England Biolabs Scientific Forum in China, Oct 31, 2023 (VIRTUAL INVITED SPEAKER)

### COURSES/COURSEWORK ATTENDED

Senior Faculty Mentor Training 2021: Optimizing Health Sciences Faculty Mentoring Relationships at University of California, San Diego. Conducted by Dr. Angela Byars-Winston, CIMER Faculty Lead for Strategic Initiatives and Professor of Medicine, University of Wisconsin-Madison and Dr. Christine Pfund, CIMER Director, and Senior Scientist, Wisconsin Center for Education Research and Institute for Clinical and Translational Research, University of Wisconsin-Madison.

CSHL Single Cell Analysis Course. Course Directors: Gene Yeo, Mike McConnell, Amy Herr, June 7-17, 2016

Revolutionary Sequencing Technologies and Applications, Cold Spring Harbor Laboratory by Greg Hannon, Elaine Mardis, Gabor Marth, Richard McCombie, John McPherson and Michael Zody, November 2007

Brain development and function at Cold Spring Harbor Laboratory by Michael Posner and Ron McKay, June-July 2000.

Ph.D. coursework included Machine Learning (Jaakkola), Neural Networks (Seung), Statistical Learning Theory and Applications (Poggio), Computational Functional Genomics (Young, Gifford), Cognitive and Behavioral Genetics (Housman, Nedivi, Pinker), Neural Plasticity in Learning and Development (Tonegawa, Quinn, Wilson, Liu), Topics in Statistics (Hardy), Nucleic Acids (RajBhandary, Bartel) GPA: 5.0 / 5.0

#### **GRANT SUPPORT**

#### **ACTIVE GRANTS**

**Domestic Active Grant Support** 

#### SFARI Pilot Award 668241

02/01/2020-01/31/2022 Annual: \$125,000

Simons Autism Foundation Inhibition of UBAP2L as a treatment of fragile X syndrome

We propose to use iPSC and mouse models of fragile X syndrome (FXS) to test if inhibition of UBAP2L, an RNA binding protein we identified as an FMRP-associated translation enhancer, can ameliorate FXS-associated molecular, cellular, functional and behavioral deficits.

Role: PI

### 5U01 HG009417-S1 (Xiao)

NIH/NHGRI

Annual: \$87,421 (Yeo) Analysis of functional genetic variants in RNA processing and expression

The major goal of this project is to develop computational tools to evaluate allele-specific binding for eCLIP data generated by the Yeo lab. Dr. Yeo is responsible for providing computational support and improving peak-calling on these eCLIP datasets. Role: Consortium PI

02/01/2021-01/31/2022

#### Grant # 2020-217276

Chan Zuckerberg Initiative

03/01/2020-02/28/2022 Annual: \$87,500 (Yeo) Entire Period: \$175,000

Entire Period: \$250,000

Entire period: \$87,421 (Yeo)

Deciphering the Microglial Inflammatory Response in 3D

In this project, we develop and apply novel single-cell technologies to identify genetic determinants of microglial activation using iPSCderived cells and mouse models. Dr. Yeo is responsible for single-cell experiments and analyses. Role: Co-Investigator

R01 EY029166 (Yeo, Afshari, Gottesfeld) 04/01/2018-03/31/2022 NIH/NEI Annual: \$156,073 (Yeo)

Entire Period: \$298,396 (Yeo) Application of RNA-targeting Cas9 to Fuchs' dystrophy The major goal of this project is to use patient-derived cells to provide a characterization of the molecular pathology of this disease and

evaluate the potential of our newly developed RNA-targeting CRISPR/Cas9 system as a therapeutic modality to eliminate toxic repeat expansions in TCF4 RNA transcripts. Dr. Yeo is responsible for generating viral delivery vectors, and performing RNA-seg, single-cell RNA-seq, RNA-FISH, and eCLIP analyses in human corneal tissue and iPSC-derived corneal endothelial cells. Role: Contact MPI

R01 NS103172 (Yeo, Swanson) NIH/NINDS

09/22/2017-05/31/2022

Annual: \$385,942 (Yeo) Entire Period: \$1,179,635 Therapeutic strategies for microsatellite expansion diseases using RNA-targeting CRISPR/Cas

The major goal of this project is to develop AAV-based therapeutic strategies for microsatellite expansion diseases using RNA-targeting CRISPR/Cas (RCas9), perform in vivo safety studies and develop alternative RNA processing biomarkers reliable for measuring RCas9 treatment efficacy in myotonic dystrophy in muscle cells. Dr. Yeo is responsible for generating AAV-packaged RCas9 constructs, their validation in cell culture model of myotonic dystrophy, and for the generation and analysis of RNA-seg and TEMPO-seg data in the efficacy and safety studies. Role: Contact MPI

U01 MH115747-03S1 NIH/NIMH

07/01/2020-06/30/2022 Annual: \$320,353 (Yeo) Entire Period: \$640,706 0.46 calendar

0.45 calendar

0.12 calendar

0.01 calendar

0.30 calendar

1.80 calendar

for these domains, and an expansion of the current transcriptomic, imaging, and electrophysiological modules. Role: Consortium Co-investigator UCSD Proposal ID: 29011 (Andersen) 08/01/2020-07/31/2022 0.24 calendar U.S. Centers for Disease Control Annual: \$133,333 (Yeo) Entire Period: \$266,667 (Yeo) Genomic sequencing of SARS-CoV-2 to investigate local and cross-border emergence and spread The goal of this contract is to develop and perform a COVID-19 genomic sequencing project to understand viral transmission dynamics. Dr. Yeo is responsible for development and expansion of open-source software for sample tracking and data analysis. Role: Subcontractor NIH 3P42 ES010337-19S1 09/01/2020-08/31/2022 0.01 calendar NIH/NIEHS Annual: \$6,284 (Yeo) Entire Period: \$12,568 Harnessing Technological Innovation and Community-Engaged Implementation Science to Optimize COVID-19 Testing for Women and Children in Underserved Communities The goal of this supplement is to provide minorities and underserved communities in the San Diego area with facile, rapid and affordable access to COVID-19 testing. Role: Co-investigator **U41 HG009889** (Graveley, Yeo) 02/05/2018-01/31/2022 1.62 calendar NIH/NHGRI Annual: \$754,078 (Yeo) Entire Period:\$1,576,357 (Yeo) A Comprehensive Functional Map of Human Protein-RNA Interactions The major goal of this project is to continue generating functional protein-RNA interaction data for human RNA binding proteins. This community resource project will generate physical resources such as tagged cell lines, validated antibodies, and expression vectors as well as data resources such as eCLIP, RNA Bind-N-Seg, knockdown RNA-seg, and protein localization data. All data will be made available to the community as it is generated and prior to publication. Dr. Yeo is responsible for generating and analyzing eCLIP data. Role: MPI UCSD Proposal ID: 29557 (Yeo) 11/01/2020-10/31/2022 0.12 calendar **CHDI** Foundation Annual: \$157,746 Entire period: \$315,100 Identification of HTT interaction partners The goal of this project is to use state-of-the art mass spectrometry and cross-linking immunoprecipitation assays in pluripotent stem cell-derived striatal neurons to identify protein and RNA interaction partners of mutant and normal huntingtin, and to validate these in postmortem brain tissue. Role: PI DoD AL29052 (Yeo) 01/01/2021-12/31/2022 0.12 calendar U.S. Department of Defense Annual: \$140.000 (Yeo) Entire period: \$280.000 (Yeo) RNA-Directed Therapy for C9ORF72-Linked ALS Using Engineered Zinc Finger Nucleases The goal of this project is to develop adenoviral vector (AAV)-delivered RNA-targeting zinc finger protein effectors as therapeutic candidates for treatment of amyotrophic lateral sclerosis caused repeat expansion in C9ORF72 (C9ALS). We will evaluate the ability of to eliminate repeat expansion RNA in patient cell lines and perform in vivo safety and efficacy studies in mice. Role: PI R01 HL137223 (Yeo, Hope) 05/01/2018-04/30/2023 0.75 calendar NIH/NHLBI Annual: \$468,866 (Yeo) Entire Period: \$938,268 (Yeo) Analysis of RNA binding proteins directing hematopoietic stem cell fate The major goal of this project is to functionally characterize a novel MSI2-interactor and putative HSC-regulator. Dr. Yeo is responsible for performing eCLIP analyses. RCas9 and antisense oligonucleotide depletion experiments, and their computational integration of the data. Role: Contact MPI P01 Al132122 (Goldrath) 07/17/2018-06/30/2023 0.46 calendar NIH/NIAID Annual: \$307,046 (Yeo) Entire Period: \$615,640 (Yeo) Molecular Determinants of Tissue-resident Memory T Cell Fate in Acute and Chronic Infection Dr. Yeo is the PI of the Single-Cell Transcriptomic and Epigenetics (SCTE) Core. The major goal of the SCTE Core is to provide a centralized resource for generating single-cell RNA-sequencing, histone modification ChIP- seq, transcription factor ChIP-seq, and ATAC-seq datasets and will generate and analyze deep DNA-sequencing data to determine the distribution of shRNAs among transduced CD8+ T cells in the context of the functional screens. Role: Core PI

The goal of the supplement and Dr. Yeo's responsibility are the addition of automated processing and analysis modules for proteomics and genomics data generated by the Psychiatric Cell Map Initiative and other consortia members, a standardized metadata framework

Allen Distinguished Investigator Award

Paul G. Allen Family Foundation

08/05/2020-08/05/2023 Annual: \$500,000

Entire Period: \$1,500,000

2.40 calendar

Early Manifestations of Subcellular Defects in Neurodegenerative Diseases In this project, we test the hypothesis that genetic mutations that cause late-onset neurodegenerative diseases lead to molecular and cellular defects in early development. We generate augmented stem cell models, to discover normal and aberrant changes in the protein and RNA components and identify the critical sub-cellular compartments and their components that protect the cell against degenerative disease. Role: PI R01 HG004659 (Yeo) 07/01/2017-06/30/2024 0.91 calendar NIH/NHGRI Entire Period: \$1,785,909 Annual: \$348,728 (Yeo) Functional RNA elements in the human genome The major goal of this project is to conduct systematic loss and gain-of-function studies to identify genes, networks and pathways involved in the regulation of RNA processing. Role: PI R01 HD101534-01A1 (Barrett, Yeo) 09/01/2020-05/31/2025 0.36 calendar NIH/NICHD Annual: \$163.193 (Yeo) Entire Period: \$815,965 (Yeo) Dissecting the role of FMRP in RNA processing using human stem cell models The goal of this project is to elucidate fundamental molecular mechanisms of the RNA binding protein FMRP in relevant human cell types. Dr. Yeo is responsible for performing RNA-seq and eCLIP studies. Role: Consortium Co-Investigator Grant # 2021-235103 07/01/2022-06/30/2023 Chan Zuckerberg Initiative Annual: \$30,000 (Yeo) Entire Period: \$30,000 Subcellular RNA dynamics in HD We aim to define global mRNA localization landscapes in normal and Huntington's disease iPSC-motor and striatal neurons to evaluate mRNA localization in nuclear, cytoplasmic, and insoluble fractions. Role: Co-Investigator R01 HG011864 (Yeo) 08/01/2021-07/31/2025 0.6 calendar NIH/NHGRI Annual: \$348,728 (Yeo) Entire Period: \$1,785,909 STAMP technology to enable single-cell and isoform-sensitive detection of RBP sites The goal of this project is to develop a novel scalable technology, reagent resource, experimental protocols and a computational framework for detecting RBP-RNA targets and translation at the single-cell and single-molecule levels. Role: PI Foreign Active Grant Support UCSD Proposal ID: 20202249 02/25/2020-02/24/2022 0.01 calendar Takeda Millennium Pharmaceuticals Entire Period: \$434.444 Annual: \$219.722 Targeting RNA binding proteins (RBPs) in Fragile X Syndrome: small molecule inhibitors of UBAP2L The aim of this research project is to identify compounds that inhibit the functional interaction between UBAP2L and the ribosome and test efficacy of hit compounds in stem cell and mouse models of FXS. Role: PI **Roche ROADS Innovation grant** 01/01/2021-12/31/2022 0.01 calendar F. Hoffmann – La Roche Switzerland Annual: \$110,000 (1<sup>st</sup> year) Entire Period: \$440,000 Modulation of RNA subcellular localization for the treatment of neurological diseases The goal of this project is to generate comprehensive maps of RNA localization in cultured neurons and brain tissue at subcellular resolution and transcript isoform specificity, relevant to Parkinson's disease. Role: PI Visiting Investigatorship Award 04/01/2018-03/31/2023 0.012 calendar Singapore National Research Foundation (NRF) & National University of Singapore (NUS) Annual: \$200,000 Entire Period: \$400,000 Dr. Yeo received a competitive award for overseas senior Singaporean scientists to uplift and mentor young scientists in Singapore to help build their careers. The award provides for travel reimbursements to Singapore and honoraria for consulting to Dr. Yeo but no salary. The funding also helps initiate collaborations and visits from international scientists to visit Singapore and for young Singapore scientists to visit UCSD. This award also funds research at the National University of Singapore on the areas of technology development in immune- oncology in collaboration with other labs in Singapore. Funding from Singapore does not provide direct

research support to NIH-funded projects (at UCSD). Similarly, NIH funding does not provide support to NUS/NRF projects in Singapore. Role: PI (Position: Honorary Visiting Professor)

### R56 AG069098 (Yeo)

#### NIH/NIA

Annual: \$419.995 Evaluating and Targeting RNA granules in neurodegenerative diseases

The goal of this project is to systematically interrogate the compositional landscape of pathological protein aggregates across a spectrum of cortical organoid models of neurodegenerative diseases, particularly dementia caused by tauopathies to identify convergent and divergent trajectories of SG dynamics and interactions in neurodegeneration. Role: PI

Entire Period: \$419.995

### R01 Al123202 (Chang, Yeo)

NIH/NIAID Annual: \$173,949 (Yeo) Entire Period \$723,464 (Yeo) Using single-cell RNA-seq to interrogate host immunity to pathogens

The major goal of this project is to develop single-cell RNA sequencing and computational tools to understand the specification of the terminal effector and memory CD8+ T lymphocyte fates. Dr. Yeo is responsible for generating, analyzing and validating single-cell RNA data.

Role: MPI

#### UCSD Proposal ID: 28563 (Lo)

U.S. IARPA Annual: \$150,000 (Yeo) Entire Period: \$150,000 (Yeo) High throughput, sensitive, rapid detection of viral infection and spread with an innovative isothermal lateral flow assay The goal of this project is to develop a viral lateral flow assay (LFA) based device for RNA/DNA (environmental DNA) detection, including COVID-19 detection, to achieve high throughput, short sample-to-result time, multiple viral targets, full automation, and high sensitivity and accuracy. Dr. Yeo is responsible for developing a web-based application for sample tracking and data visualization. Role: Subcontractor

### P01 Al132122 (Yeo)

7/1/2018-6/30/2019

NIH/NIAID

Single-cell transcriptomic and epigenetics core

The Single-Cell Transcriptomics and Epigenetics (SCTE) Core will support all three Projects and the Bioinformatics and Computational Biology (BCB) Core in generating robust single-cell transcriptomic and small-cell-number epigenetic datasets as well as performing DNA-sequencing for interpretation of in vivo shRNA-based functional screens. The SCTE Core will provide a centralized resource for generating single-cell RNA-sequencing, histone modification ChIP-seq, transcription factor ChIP-seq, and ATAC-seq datasets. Additionally, the SCTE Core will generate and analyze deep DNA-sequencing data to determine the distribution of shRNAs among transduced CD8+ T cells in the context of the functional screens. We envision that use of a single Core will increase rigor and reproducibility in experimental methodology, increase synergy among investigators and laboratories, and enable direct comparison of the resulting datasets. Generation of these datasets will enable the BCB Core and individual Projects to achieve the overall goal of elucidating the molecular heterogeneity, transcriptional and epigenetic regulation, and function of tissue-resident CD8+ T cells in the context of acute and chronic infection.

Role: PI

R01 HG004659 (Fu, Yeo)

6/1/2018-6/30/2020

NIH/NHGRI

Functional RNA elements in the human genome

This proposal seeks competitive renewal of a multi-PI project (Fu and Yeo), which aims to use global approaches to elucidate the regulatory principles of RNA binding proteins (RBPs) in mammalian genomes. Built upon our accomplishments in the past funding cycle, we propose to leverage the powerful experimental and computational tools we have developed to pursue four specific aims. In Aim 1, we will couple gain- and lost-of-function multi-target screens to deduce regulatory pathways at both splicing and polyadenylation levels. We will focus on determining the specific function of different RNA polymerase II (Pol II) subunits, rather than by the Pol II CTD alone, in the recruitment of RNA processing machineries for co-transcriptional RNA processing. In Aim 2, we will develop a general strategy for systematic identification of chromatin-associated RBPs to determine direct contribution of some RBPs to transcription and co-transcriptional RNA processing reactions. We will concentrate our efforts in dissecting a potential new pathway in epigenetic control of alternative splicing as well as broader roles of specific RBPs in direct transcriptional control. In Aim 3, we will use a novel strategy for identification and characterization of non-canonical RBPs. Focusing on a large number of newly identified finger zinc (Znf) proteins, we propose to determine their roles in binding to both DNA and RNA and deduce their transcriptome-wide interactions with RNA. We also propose to pursue a specific paradigm in this aim on a newly identified RBP known to associate with the nuclear pore to determine its role in selective mRNA nuclear export, which is pertinent to an ALS-regulated disease pathology. Combined, we believe that this comprehensive, interconnected, and hypothesis-driven research plan will greatly advance our understanding of regulated RNA processing and associated disease mechanisms. Role: PI

09/23/2016-08/31/2021

09/01/2020-08/31/2021

#### NIH/NIMH

Collaboration on preclinical autism cellular assays, biosignatures, and network analyses (Copacabana) This study aims to generate robust tools and workflows for creating human induced pluripotent stem cell (hIPSC)-based models of autism spectrum disorder (ASD), and to develop scalable assays for predictive molecular and cellular phenotypes relevant to autism. We have identified several key bottlenecks in the widespread adoption of hIPSCs as tools that allow the dissection of molecular mechanisms underlying neurological disease and enable preclinical drug screening. We have assembled a team of five leading experts in neuroscience, stem cell biology and computational biology, who will collaborate up with three innovation-driven biotech companies (Fluidigm, BD Biosciences and Synthetic Genomics) to overcome these roadblocks. Since autism is considered a disorder of synapse development and function that ultimately leads to circuit dysfunction in the brain, we will develop quantitative assays of synapse end network function that can be used in high-throughput drug screens. We also aim to uncover the upstream molecular events that precipitate synaptic and network dysregulation, and identify predictive RNA and protein signatures. Our strategy is to engineer models of genetic forms of autism by genomic manipulation using a well- characterized, neurotypical hIPSC line as the starting point. We will then differentiate these normal and mutant cells to cortical neurons and astrocytes, the two cell types that have been most strongly implicated in autism pathophysiology. Highly guantitative and sensitive assays at the single-cell level will be used to identify changes in protein and RNA expression that can distinguish ASD neurons and astrocytes from normal cells. Finally, we will develop assays measuring synapse density and strength using advanced technology that can be used in high-throughput format. We envision that our tools, technologies and assays, all of which we will make publicly available as they are being generated, will both critically contribute to our understanding of ASD and accelerate preclinical research of neurological disease. Role: PI

# R01 HD085902-01 (Yeo, Chi)

NIH/NICHD

Reconstruction of cardiovascular regulatory networks from large-scale single-cell analyses of cardiovascular lineages. The gene regulatory networks underlying early human cardiovascular (CV) development is poorly understood, in large part due to the dearth of molecular and genetic information specifying the diversity of cardiovascular progenitor cell-types (CVPCs). Human pluripotent stem cell (hPSC)-derived CV cells provide a model for human cardiogenesis and afford us the opportunity to reveal the various CV cell types generated during heart development and to also functionally discover and validate CV developmental gene regulatory networks. In this proposal, we will employ single cell transcriptome (RNA-seq) analysis to dissect the heterogeneity of early CV progenitor populations that give rise to the spectrum of distinct CV cell types and their intermediates. By identifying these potentially rare and novel progenitor cell types as well as studying their lineage choice decisions at the single cell level, the cellular and molecular networks underlying these progenitor cells and their differentiated CV cell types that control their differentiation can be revealed. To achieve our goal, a synergistic and complementary collaboration between the Yeo and Chi labs will aim to (1) investigate the diversity and organization of CV cellular subtypes during cardiogenesis in vitro, (2) develop novel algorithms that enable the extraction of gene regulatory programs that specify CV lineage sub-networks and (3) investigate the functional significance of identified CV cell subtypes. If successful, we will reveal pathways and cell-types that will advance our basic and translational framework for treating congenital heart disease.

Role: PI

### ALSA 17-IIP-352 (Yeo)

Discovery of stress granule components in models of ALS The major goals of this project are to identify protein and RNA components in stress granules in motor neurons from ALS patient cells

### ALSA VC8370 (Yeo)

Comprehensive analysis of RNA localization and transport mechanisms in wildtype and ALS motor neurons The major goals of this project are to use computational and molecular techniques to identify an RNA signature of TDP-43 dependent misregulation in human neurons derived from stem cells. Role: PI

### 3 U01HL107442-04S1 (Frazer and Yeo)

NIH/NHLBI Supplement

Regulatory Genomic Studies in a Cohort of IPS Cell Derived Cardiomyocytes

The goal of this grant is to perform single-cell sequencing to identify regulatory circuits during cardiomyocyte specification from induced pluripotent stem cells. My lab is responsible for all the single-cell RNA-seq library preparations and analyses Role: PI

### R01 GM084317-01A1 (Ares, Yeo)

NIH/NIGMS (sub-award with UC Santa Cruz)

Genomic measurement of alternative splicing

In this multi-PI project, we will focus on the development and application of alternative splicing DNA microarrays that allow medium to high-throughput parallel detection and analysis of multiple alternative splicing patterns. Role: PI

### CIRM RB1-01413 Basic Biology I (Yeo)

RNA binding protein-mediated Post-transcriptional Networks Regulating HPSC Pluripotency

03/01/2016-02/28/2021

### 8/1/2016-7/31/2019

8/1/2015-7/31/2018

9/1/2014-6/30/15

01/01/2009-12/31/2012

10/01/2009-9/30/2012

CIRM RB3-05219 Basic Biology III (Yeo, Spector) Viral-host interactions affecting neural differentiation of human progenitors

In this project with the Spector lab, we focus on studying if HCMV infection of human neural progenitors affects differentiation using a battery of genomics and computational methods. Role: Co-investigator

In this project, we will focus on comprehensively identify transcribed RNAs in human pluripotent stem cells that are directly targeted by

### CIRM RB3-05009 Basic Biology III (Yeo)

RNA binding proteins important in pluripotency.

Neural and general splicing factors control self-renewal, neural survival and differentiation In this project, we focus on studying if splicing factors can control stem cell pluripotency and differentiation. Role: PI

### CIRM TR3-05676 Early Translation III (Yeo)

Molecules to correct aberrant RNA signature in human diseased neurons In this project, we focus on using an RNA signature for ALS to screen for small molecules that reverse the signature to a healthy neuron.

Role: PI

Role: PI

### CIRM RB4-06045 Basic Biology IV (Yeo)

Stem cell models to analyze the role of mutated C9ORF72 in neurodegeneration

In this project we will reprogram somatic cells from C9ORF72 mutant patients to generate human iPSC models for the disease. We will use genome-wide technologies to reveal molecular pathways that differ between motor neurons derived from C9ORF72 patients, isogenic controls and repeat-harboring ES cells. Role: PI

### ALSA VC8K27 (Yeo)

Identification of an RNA Signature of TDP-43 Dependent Misregulation in Human Neurons The major goals of this project are to use computational and molecular techniques to identify an RNA signature of TDP-43 dependent misregulation in human neurons derived from stem cells. Role: PI

Roche EIN Grant (Yeo)

Reversing RNA processing defects, a common basis for neurodegenerative disorders In this grant with Roche Pharmaceuticals, we will use robust, inexpensive and scalable genomic technologies to identify small molecules that can revert the RNA signature of an abnormal neuron to normality. Role: PI

### CIRM RT2-01927 Tools and Technologies II

Developing a method for rapid identification of high-quality disease specific hIPSC lines In this project with the Goldstein lab, we will focus on developing high-throughput assays and methods to generate and identify hIPSC lines.

Role: Co-investigator

### Brain Research Foundation Grant BRFSG-2014-14 (Yeo)

Global analysis of transcriptome diversity at the single cell level in human neurons This project funds single cell analysis in human neurons. Role: PI

### R01 NS075449-01A1 (Yeo)

NIH/NINDS

Defining the messenger RNP code in the brain

This proposal seeks to establish the interactions among selected RNA binding proteins and their functional RNA elements in mammalian neurons. This will be a crucial first step in elucidating the RNA networks regulated by these RNA binding proteins in the brain. The goal is to identify the RNA maps and predictive models for RNA processing in the brain based on functional changes and binding of RNA binding proteins.

Role: PI

### R01 HG004659-03 (Fu, Yeo)

NIH/NHGRI

Functional RNA elements in the human genome

10/01/2011-9/30/2014

10/01/2011-9/30/2014

12/1/2012-11/30/2015

3/01/2013-2/28/2016

8/1/2011-7/31/2013

01/01/2012-01/01/2014

04/01/2011-03/31/2014

06/01/2014-05/31/2015

02/15/2012-01/31/2017

(Yeo, Goldstein)

**U54HG007005** (Graveley, Yeo) NIH/NHGRI ENCODE Project: Comprehensive analysis of functional RNA elements in the human genome.

The goals of this project are to identify the functional RNA elements recognized by 250 RNA binding proteins in the human genome in Hela-S3 and GM12878 cells. Role: co-PI

### U01 HL107442-01 (Frazer, Yeo)

Regulatory Genomic Studies in a cohort of iPS cell derived cardiomyocytes

In this multi-PI grant with the Frazer lab, we will use iPSC derived cardiomyocytes from genotyped individuals as cellular models to investigate how human genetic variation influences the gene regulatory networks involved in cardiac biology. Role: Co-PI

R01Al095277-03S1 (Chang, Yeo)

NIH/NIAID Supplement

Regulation and Function of Polarity and Asymmetric Cell Division in Immunity

The goal of this grant is to assess the regulation of asymmetric cell division of CD8+ T cells in immunity. My lab is responsible for all the single-cell RNA-seq library preparations and analyses. Role: Co-PI

#### MENTORING

Postdoctoral	fellows	(2008-current)
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Past / Current Trainee	Trainee Name	Postdoc Research Training Period	Current Position of Past Trainees or Source of Support for Current Trainees during their tenure in my lab
Past	Katlin Massirer	2010-2011	Katlin was appointed a Faculty (Professor) at the State University of Campinas, Sao Paulo, Brazil when she left my lab.
Past	Kasey Hutt	2010-2014	Kasey was recruited as a Bioinformatics Scientist, R&D, at Invivoscribe in San Diego.
Past	Jason Nathanson	2009-2014	Jason joined as a R&D Scientist at biotech Sequenom after leaving my lab. Jason is currently a Senior Translational Scientist at the Salk Institute.
Past	Leo Kurian	2013-2014	Leo was appointed as a Faculty (Group leader), Cologne University, Germany when he left my group.
Past	Suzanne Lee	2013-2014	Suzanne was appointed as Faculty, Dept of Biology, Western Washington University, Bellingham, WA when she left my lab.
Past	Katannya Kapeli	2012-2015	Katannya was recruited as a Senior Research Fellow at National University of Singapore when she left my lab. She is currently a Bioinformatics Data Scientist at Sengine Precision Medicine.
Past	Tomas Bos	2012-2017	Tomas was funded by the BAEF – Belgian American Education Foundation and my NIH Grants when he was in lab. He joined a biotech company in Belgium when he left the lab.
Past	Sebastian Markmiller	2011-2016	Sebastian was funded by the Larry L Hilblom Fellowship when he was in my lab. Sebastian is currently a Project Scientist in my lab and is a co-founder of a biotech startup company with me.

09/01/2012-8/31/2016

5/01/2011-4/30/2016

09/1/2014-8/31/16

Past	Yan Song	2011-2015	Yan was funded by my NIH grants and was promoted to a Project Scientist funded on a Takeda-UCSD award. Yan is currently a scientist recruited by Takeda in San Diego.	
Past	Ron Batra	2015-2017	Ron was funded by a Myotonic Dystrophy Association Fellowship. Upon leaving my lab Ron joined Verily Life Sciences. He was recruited to serve as VP R&D at Locanabio, a start-up company I co-founded based on his postdoctoral publications.	
Past Ashleigh 2015-2017 Schaffer			2015-2017	Ashleigh Scaffer was funded by a NIH K99 Award in my lab. She was appointed as Faculty (Assistant Professor) at Case Western Reserve University when she left my lab.
Past	Sarah Barnhill	2017-2018	As a graduate student in my colleague Nathan Gianneschi's lab, Sarah collaborated with students in my lab. When Nathan left for Northwestern University, I adopted Sarah as a postdoctoral fellow to finish up her project. For personal reasons, Sarah moved to OHSU as a postdoctoral fellow. Sarah is currently working for Intel.	
Past	Eric Van Nostrand	2012-2020	Eric was funded by a Damon Runyon Cancer Fellowship and then a NIH K99 Award in my lab. Eric was recruited as Faculty (Assistant Professor), Baylor College of Medicine after he left my lab.	
Past	Meredith Corley	2017-2020	Meredith was funded as a Milton Safenowitz Postdoctoral Fellow in my lab. Meredith was recruited as a Senior Scientist at Ionis upon leaving my lab.	
Past	Kristopher Brannan	2014-current	Kris was funded by a CIRM Post-doc Fellowship and then UC President's and Chancellor's Postdoc Fellowship. Kris is currently an Assistant Project Scientist in my lab and is applying to faculty positions.	
Past	Frederick Tan	2015-current	Fred was funded by an American Cancer Society postdoc fellowship. Fred is currently an Assistant Project Scientist in my lab and has co-founded a biotech company. He is finishing up his manuscript and fund-raising for this company.	
Current	Isaac Alexander Chaim	2016-current	Isaac is funded by a IRACDA Postdoctoral Fellowship; UC President's and Chancellor's Postdoc Fellowship.	
Past	Mark Perelis	2017-2021	Mark is funded by a F32 NIH Postdoctoral Training Grant. Mark has obtained a Scientist position at Ionis Pharmaceuticals.	
Current	Aaron Smargon	2018-current	Aaron is funded by my NIH Grant	
Current	Joshua Schwartz	2018-current	Joshua is funded by my NIH Grant	
Current	Kathryn Morelli	2018-current	Kathy was funded by an NIH Grant and is currently on a UC President's and Chancellor's Postdoc Fellowship	
Current	Chun-Yuan (Elliot) Chen	2018-current	Elliot is funded by my NIH Grant	
Current	Daniel Lorenz	2018-current	Dan is funded by my NIH Grant	
Current	Shengnan Joy Xiang	2019-current	-	
Current	Phuong Le	2020-current	Phuong is funded by my NIH Grant	
Current	Wenhao Jin	2019-current	Wenhao is funded by my NIH Grant	
Current	Hugo Medina	2020-current	Hugo is funded by a IRACDA Postdoctoral Fellowship	
Current	Evan Boyle	2019-current	Evan is funded by Helen Hay Whitney Foundation Fellowship	
Current	Katie Rothamel	2021-current	Katie is funded by my NIH Grant.	
Current	Orel Mizrahi	2021-current	Orel is funded by my NIH Grant.	

## Graduate (PhD) students (2008-current)

Past / Current Trainee	Trainee Name	Graduate Program	Training Period	Position of Past Trainee upon leaving the lab	Source of Support for Trainee and Awards
Past	Melissa Wilbert	BMS	2008-2014	Computational Biologist, Bluebird, Boston	NIH Genetics Training Program and CIRM Predoc Fellowship. BMS Best Dissertation Award
Past	Stephanie Huelga	BISB	2009-2014	Bioinformatics Scientist at Nugen, currently employed by Eclipse Bioinnovations	ARCS Award (2012-2013), NSF Graduate Fellowship
Past	Michael Lovci	BMS	2009-2014	Driver Biotech and currently employed at Proteona	ARCS Award (2014-2015), NSF GK12 Fellowship, Gift from Genentech
Past	Thomas Stark	Biology	2008-2014	Informatics Health Scientist at CDC	Genetics Training Grant
Past	Anne Conway	BMS	2008-2014	Miltenyi Biotec	Genetics Training Grant
Past	Boyko Kakaradov	BISB	2012-2015	Bioinformatics Scientist, Human Longevity Institute; currently at Arrakis	NSF Graduate Fellowship
Past	David Nelles	Materials	2010-2016	Co-founder and Chief Technology Officer, Locanabio when he left the lab	ARCS Award (2015-2016), NSF Graduate Fellowship
Past	Fernando Martinez	BMS	2012-2016	Senior Scientist, Fountain Therapeutics	Genetics Training Grant
Past	Elaine Pirie	BMS	2012-2017	Scientist at Ionis	NIH grant (Yeo)
Past	Julia Nussbacher	BMS	2012-2018	Scientist at GNF/NIH T32 Cancer cell Training Grant, currently scientist at Locanabio	ARCS Award (2015-2016)
Past	Gabriel Pratt	BISB	2012-2018	Scientist at Twinstrand	NSF Graduate Fellowship
Past	Olga Botvinnik	BISB	2013-2017	Scientist at CZI Biohub/	ARCS Award (2016-2017), NDSEG Fellow, John Hunter Open Source Fellowship
Past	Leen Jamal	BISB	2013-2018	Data Scientist at Inova	NSF Graduate Fellowship
Past	Mark Fang	MSTP/ BMS	2015-2019	Medical School/Residency Program	MSTP program, NIH grant (Yeo
Past	Zhaoren He	Biology	2015-2019	Bioinformatics scientist at Guardant Health	Joint student with Kees Murres
Past	Yilan Shi	BMS	2018-2020 (Terminal Masters)	Grant writer/Entrepreneur	NIH Genetics Training Grant
Past	Emily Wheeler	BMS	2015-2020	Postdoc Fellow (Harvard)	ARCS Award (2017-2018), NSF Graduate Fellowship
Past	En-ching Luo	Bioenginee ring	2015-2020	Scientist at Ionis	Taiwan government Fellowship
Past	Jaclyn Einstein	Bioenginee ring	2015-2020	Postdoc	ARCS Award (2018-2019), NIH F31 Fellowship, CBIO Training Grant

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Current	Benjamin Lewis	Biology	2015- current (Joint student with Tony Hunter, Salk)	current student	NIH grant (Hunter)
Current	Anthony Vu	BMS	2016- current	current student	ARCS Award (2019-2020), NSF Graduate Fellowship
Current	Ryan Marina	BMS	2016- current	current student	ARCS Award (2018-2019), Genetics Training Grant, NIH F31 Fellowship
Current	Jonathan Schmok	Bioenginee ring	2018- current	current student	Canadian government Fellowship
Current	Noorsher Ahmed	BMS	2018- current	current student	Genetics Training Grant
Current	Margaret Burns	BMS	2018- current	current student	Endocrinology Training Grant
Current	Qishan Liang	Chemistry	2018- current (Joint Student with Kevin Corbett)	current student	NIH grant (Corbett)
Current	Danielle Schafer	BMS	2019- current (Joint Student with Nicole Coufal)	current student	Genetics Training Grant
Current	Clarence Mah	Bioinformat ics	2019- current	current student	NSF Graduate Fellowship
Current	Sara Elmsaouri	BMS	2019- current	current student	NIH Genetics Training Grant
Current	Hsuan-lin Her	BISB	2020- current	current student	NIH Genetics Training Grant
Current	Pratibha Jagannatha	BISB	2020- current	current student	NIH Bioinformatics Training Grant
Current	Samantha Sison	Neuroscien ce	2020- current	current student	NSF Graduate Fellowship
Current	Maya Gosztyla	BMS	2020- current	current student	NSF Graduate Fellowship. Myotonic Dystrophy Graduate Fellowship
Current	Alexandra Tankka	BMS	2020- current	current student	CBIO Training Grant
Current	Eric Kofman	BISB	2020- current	current student	NSF Graduate Fellowship, NIH T32 Training Grant
Current	Alicia Van Enoo	Neuroscien ce	2020- current	current student	NIH Grant

Current	Sam Hatch	BMS	2021- current	current student	NIH Grant				
Current	Norah Al-Azzam	Neuroscien ce	2021- current	current student	NIH Grant				
Current	Hema Kopalle	Biology	2021- current	current student	NIH Grant				
Jennifer Higginbotham, BMS (Graduated, Clodagh O'Shea's Lab) Cory White, Bioinformatics (Graduated, Chris Woelk's Lab), PhD, Spring 2016 Matthew Sternfeld, Biology (Graduated, Sam Pfaf's Lab) Lauren Fong, BMS (Graduated, Larry Goldstein's Lab), PhD, Steven Lee Ceto (Graduated, SPAC Advisor) Martha Flores, Biology (Graduated, Kees Murres's Lab) Elaine Pirie, BMS (Graduated, Ve O Lab), Advisor Jonathan Grinstein, BMS (Graduated, Ve O Lab), Advisor Jonathan Grinstein, BMS (Graduated, Neil Chi's Lab) Sarah Anne Barnhill, Materials Sciences (Graduated, Nathan Gianneschi's Lab) Alexander Sinclair Hamil (Graduated, Neil Chi's Lab) Sarah Anne Barnhill, Materials Sciences (Graduated, Nathan Gianneschi's Lab) Alexander Sinclair Hamil (Graduated, Pamela Mellon's Lab) Charles Bradford Larson (Graduated, Pamela Mellon's Lab) Charles Bradford Larson (Graduated, Jornane Pillus' Lab) Kristopher Standish, BMS (Graduated, Michael Bosenfeld's Lab) Naomi Ellen Searle, BMS (Graduated, Michael Rosenfeld's Lab) Sochwan Oh, Biology (Graduated, Michael Rosenfeld's Lab) Olubankole Adebayo (Graduated, John Ravits Iab) Danielle Marie Garshott (Graduated, John Ravits Iab) Anna Guzikowski (Graduated, Arine Panet's Iab) Danielle Marie Garshott (Graduated, Arine Sander's Lab) Danielle Marie Garshott (Graduated, Arine Bills' Lab) Anna Guzikowski (Graduated, Arine Pasquinelli's Iab) Delaney Pagliuso (Graduated, Arine Pasquinelli's Iab) Delaney Pagliuso (Graduated, Arine Pasquinelli's Iab) Alson Parisian (Graduated, Arine Pasquinelli's Iab) Jacob Wozniak (Graduated, Arane Pasquinelli's Iab) Jacob Wozniak (Graduated, Arane Sheikh's Iab) Jacob Wozniak (Graduated, Frank Furmari's Iab) Sam Roth (Graduated, Frank Furmari's Iab) Sam Roth (Graduated, Frank Sheikh's Iab) Ember Tota (Graduated, Farah Sheikh's Iab) Ember Tota (Graduated, Farah Sheikh's Iab) Ember Tota (Graduated, Michael Burkar's Iab) Warren Chan (Graduated, Yeo Iab ), Masters Yavia Buyie (Graduated, Meal Deveraj's Iab)									
Kayla Busby (Graduated, Neal Deveraj's lab) Jamison McCorrison (Graduated, Nicholas Shork's lab)									

Kevin Ross (Graduated, Bruce Hamilton's lab) William Schreiner (Graduated, Amy Pasquinelli's lab) Brian Reilly (Graduated, Rafael Bejar's lab) Daniel Jacobsen (Graduated, Kun Zhang's lab) Anjali Gupta (Graduated, Rolf Bodmer's lab) Ai Zhang (Graduated, Jeanne Loring's lab) Kyle Begovich (Graduated, James Wilhelm's lab) Jonathan Meritt (Graduated, Alysson Muotri's lab) Tri Nguyen (Graduated, Sheng Zhong's lab) Debha Amatva (Graduated, Rustv Gaeq's lab) Kanishk Asthana (Current, Wei Wang's lab) Hratch Baghdassarian (Current, Nathan Lewis' lab) Raymond Berkeley (Current, Galia Debelouchina's lab) Katherine Lee (Current, Heidi Cook-andersen's lab) Carlos Medina (Current, Steve Dowdy's lab) Andrew Ryan (Current, Matt Daugherty's lab) Tyger Saltman (Current, Clodagh O'Shea's lab) Erin Schiksnin (Current, Amy Pasquinelli's lab Lina Zheng (Current, Wei Wang's lab) Joseph Herdy (Current, Fred Gage) Juliet Nicodemus (Current ,Jerold Chun's lab) Melinda Beccari (Current, Don Cleveland's lab) James Hocker (Current, Bing Ren's lab) Jad Kanbar (Current, John Chang's lab) Madison Edwards (Current, Simpson Joseph's lab) Ashley Wong (Current, Alexis Komor's lab) Amy Taylor (Current, John Ravit's lab) Alanna Koehler (Current, Rob Hevner's lab) Preston Dennett (Current, Clodagh O'Shea's lab)

### SERVED ON MINOR PROPOSITION COMMITTEE

Shannon Muir - Committee Member, 2009 Jesse Dixon – Committee Member, 2009 Sol Revna - Committee Member. 2010 Eleen Shum - Committee Member, 2010 Brandon Sos - Committee Member, 2011 Jacqueline Ward - Committee Member, 2011 Babette Hammerling - Committee Member, 2012 Elaine Pirie - Committee Member. 2012 Charles Larson - Chair. 2013 Kevin Ross - Committee Member, 2013 Navarre Gutierrez-Reed - Committee Member, 2014 Sarah Ur - Committee Member. 2014 Vivian Fu - Committee Member, 2015 David Jakubosky - Committee Member. 2015 Jackson Jones - Committee Member. 2015 Carlos Medina - Committee Member, 2017 Melinda Beccari - Chair, 2018 James Hocker - Committee Member, 2018 Alanna Koehler – Committee Member, 2018

### UNDERGRADUATE RESEARCH ASSISTANTS IN YEO LAB

- 1. Lloyd Howard Wang, Biology (Graduated)
- 2. Yunghui Chang, Biology (Graduated)
- 3. Brett Roberts, Bioengineering (Graduated)
- 4. Bernice Yan, Biology (Graduated)
- 5. Stella Chen, Biology (Graduated)
- 6. Yiu Cheung Wong, Electrical Engineering (Graduated)
- 7. Jade Laguer, Biology (Graduated)
- 8. Ashley Wu, Biology (Graduated)
- 9. Jeremy Chang, Biology (Graduated)
- 10. Chau Ly, Biology (Graduated)
- 11. Clara Yuh, Biology (Graduated)
- 12. Duy Duong, Biology (Graduated)

- 13. Jasmine Kyung, Bioengineering (Graduated)
- 14. Thaomi Phuong, Bioengineering (Graduated)
- 15. Jake Gutkowski, Nanoengineering (Graduated)
- 16. Dylan Donn, Biology (Graduated)
- 17. Bianca Nguyen, Biology (Graduated)
- 18. Brandon Myszka, STARS Program, Canisius College (Graduated)
- 19. Ashley Louie, Psychology (Graduated)
- 20. Eyan Chee, Bioengineering (Graduated)
- 21. Kuunal Goel, Biology (Graduated)
- 22. Regina Woo, Biology (Graduated)
- 23. Samson Peter, Biology (Graduated)
- 24. Daniel Wen, Bioengineering (Graduated)
- 25. Kyle de Valle, Biology (Graduated)
- 26. Jessica Lettes, Computer Science (Graduated)
- 27. Grace Chen, Neuroscience (Graduated)
- 28. Chau Le, Biochemistry: Cell Biology
- 29. Yuanchi Ha, Computer Science
- 30. Ginny Wu, Bioinformatics
- 31. Rahul Nachnani, Biology (Graduated)
- 32. Lily Hahn, Biology (Graduated)
- 33. Eric Byeon, Biology (Graduated)
- 34. Vu Nguyen, Neuroscience and Physiology (Graduated)
- 35. Nigel Zhang, Neuroscience and Physiology (Graduated)
- 36. Tristan Bridges, SURF Program, San Diego City College (Graduated and joined the lab)
- 37. Harrison Wang, Bioengineering (Graduated)
- 38. Thai Bao Nguyen, Biology (Graduated)
- 39. Lucy Xu, Bioengineering (Graduated)
- 40. Megan Lo, Neuroscience (Graduated)
- 41. Enrique Amaya, STARS Program, University of Monterrey, Mexico (Graduated)
- 42. Colin Eckstein, SURF Program, Pomona College (Graduated)
- 43. Mayuresh Mujumdar, Human Biology (Graduated)
- 44. Annalisa Scafidi, Chemistry (Graduated)
- 45. Delia Jimenez, Natural Sciences Honor Program, University of Saint Katherine (Graduated)
- 46. Josephine Chu, CIRM Intern, SDSU (Graduated)
- 47. Minerva Contreras, STARS Program, Autonomous University of Querataro (Graduated)
- 48. Joshua Ahdout, Human Biology (Graduated)
- 49. Annalisa Scafidi, Chemistry (Graduated)
- 50. Steven Decker, CIRM Intern, SDSU (Graduated)
- 51. Jessica Octavio, CIRM Intern, SDSU (Graduated)
- 52. Krysten Leigh-Jones, CIRM Intern, Cal Poly, San Luis Obispo (Graduated)
- 53. Mehrnaz Siavoshi, STARS Program, Cal State University, Northridge (Graduated)
- 54. Samantha Oetjen, STARS Program, Chaminade University of Honolulu (Graduated)
- 55. Annalisa Scafidi, Chemistry (Graduated)
- 56. Delia Jiminez, Natural Sciences Honor Program, University of Saint Katherine (Graduated)
- 57. Ginny Wu, Biology (Graduated)
- 58. Esau Estrada, Cognitive Science
- 59. Sai Hosuru, Bioinformatics
- 60. Archishma Kavalipati, Bioinformatics
- 61. Juan Lerma Jr., Human Biology
- 62. Katherine Wong, Human Biology
- 63. Alex Sun, Biotechnology
- 64. Allison Li, Human Biology
- 65. Jocelyn Quiroz, Bioengineering
- 66. Bryce Henroid, Bioengineering
- 67. Seungmin Nam, Biology
- 68. Zoe Adelsheim, Neurobiology
- 69. Aryaman Agarwal, Cell and Molecular Biology
- 70. Brandon Liu, Cell and Molecular Biology
- 71. Vivian Pham, Molecular Biology
- 72. Gino Prasad, Bioinformatics
- 73. Je Seung An, Biology
- 74. Denhxiaoyu Shi, Bioinformatics
- 75. Nicholas Truong, Biochemistry (Santa Clara University)
- 76. Yueshan Liang, Biosystems and Biology