### Gene W. Yeo, Ph.D., MBA

Professor 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 geneyeo@ucsd.edu



**Gene Yeo PhD MBA** is a Professor of Cellular and Molecular Medicine at the University of California San Diego (UCSD), 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 and Associate Director of a Genetics T32 training program at UCSD.

Dr. Yeo is a computational and experimental scientist who has contributed to RNA biology and therapeutics. His primary research interest is in understanding the importance of RNA processing and the roles that RNA binding proteins (RBPs) play in development and disease. Since inception, Dr. Yeo's lab has focused on uncovering molecular principles by which RBPs affect gene expression, how RBP-mediated post-transcriptional gene networks contribute to cellular homeostasis in stem cells and the brain, and how mutations in RBPs lead to human developmental and neurodegenerative disease. His lab pioneered computational algorithms and experimental methods in human disease-relevant systems to

conduct systematic and large-scale studies. These multidisciplinary methods combine machine learning, biochemistry, molecular biology, genomics, chemistry and materials research. His lab develops methods that are systematic, robust and adoptable, such as enhanced CLIP for the purposes of large-scale mapping of protein-RNA interactions (Van Nostrand *et al, Nature Methods, 2016*). Gene's lab is 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*). They have also systematically 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*; 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*) with proof of concept in repeat expansion disorders (Batra *et al, Cell, 2017;* Batra *et al, Nature Biomedical Engineering, 2020*). Recently his lab has developed the STAMP technology (Brannan *et al, Nature Methods, 2021*) which is the first transcriptome-wide method for identify RNA binding protein sites and translation measurements at single-cell resolution. 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.

Dr. Yeo has authored more than 180 peer-reviewed publications 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 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 first 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 and 2020), 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. Gene is a co-founder of biotech companies which includes Locanabio, Eclipse Bioinnovations, Enzerna, Proteona, Trotana and Circ Bio. Gene serves or had served on the scientific advisory boards of the Allen Institute of Immunology, Locanabio, Eclipse Bioinnovations, Proteona, CircBio, Aguinnah, Cell Applications, Tecan, LGC, Sardona Therapeutics, Ladder Therapeutics, Insitro, Trotana, Nooma and Ribometrix. 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 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 has ~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 is co-director of the EXCITE (Expedited Covid Identification Environment) lab that performs Covid high-throughput testing at UCSD and is a member of the Return-to-Learn steering committee at UCSD. Gene is on the Return-to-Work task force in Biocom. 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. 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 has completed 2 full Ironman-distance and multiple half-ironman-, olympic-, sprint-distance triathlons, full marathons and half-marathons, but now spends time rock climbing.

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Sanford Consortium for Regenerative
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La Jolla, CA 92037
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geneyeo@ucsd.edu

# Gene W. Yeo

Scientist, Entrepreneur

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

### **RESEARCH INTERESTS**

- <u>Understanding RNA processing</u>: 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.
- Neurological diseases: 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.
- ♦ Virus-host interactions: My lab reveals new insights into how DNA and RNA viruses affect the host transcriptome.
- <u>Single cell technologies and analysis</u>: 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	July 2005-Sept 2008
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Computational and Theoretical Biology; Senior Fellow Mentors: Fred Gage and

Sean Eddy

University of California, San Diego, CA Masters of Business Administration at the Sept 2006- Aug 2008

Rady School of Management

Massachusetts Institute of Technology, Ph.D. in Computational Neuroscience, Sept 2000- Feb 2005

Cambridge, MA

Department of Brain and Cognitive
Sciences; Advisors: Christopher Burge and
Tomaso Poggio, Members: Phillip Sharp

and Martha Constantine-Paton.

University of Illinois, Urbana- Bachelor of Science (B.S.) in Chemical 1994-1998

**Champaign, IL**Engineering, Highest Honors, Supervisor:
Charles Zukoski.

Bachelor of Arts (B.A.) in Economics, High

Honors

### 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 July 1 2016-current

2018-current 2018-current

### Biology Graduate Program

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),

Aug 2013-present

Department of Physiology

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

2000

Research Associate

Mentors: Venkatesh Byrappa and Sydney Brenner: Regulatory elements conserved in non-coding regions.

Chiron, Research and Development, Emeryville, CA Research Technician

2000

Millennium Pharmaceuticals, Millennium Predictive Medicine (MPMX), MA

2001

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.

Neuron Systems, MA Bioinformatics Consulting 2004-2006

Co-founder, GeneBytes

2008-2010

Bioinformatics Consultant

2011-2012

Clients include: ISIS Pharmaceuticals, Sequenom, Roche

Scientific Advisory Board Member, <b>Aquinnah</b>	2014-2017
Scientific Advisory Board Member, Interpreta	2014-2015
Co-founder, Enzerna	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)	2017-current
Co-founder, Director and Scientific Advisor, Eclipse Bioinnovations (Incorporated June 23, 2017)	2017-current
Scientific Advisory Board member, <b>Jumpcode</b>	2017-current
Scientific Advisory Board member, Nugen now acquired by Tecan	2017-2018
Scientific Advisory Board member, <b>Ribometrix</b>	2018-current
Scientific Advisory Board member, Allen Institute for Immunology	2018-current
Scientific Advisory Board member, <b>LGC</b>	2018-current
Scientific Advisory Board member, Sardona Therapeutics	2020-2021
Senior Advisor, Accelerator Life Sciences Partner	2020-current
Scientific Advisory Board member, <b>Nooma</b>	2021-current
Scientific Advisory Board member, <b>LadderTX</b>	2021-current
Scientific Advisory Board member, Insitro	2021-current
Co-Founder, Scientific Advisory Board member, CircBio	2021-current
Advisor, <b>Nucleate</b>	2021-current
Board Member, <b>n-Lorem</b>	2021-current
Board Member, 1Strand	2021-current
Co-founder, Director and Scientific Advisor, <b>Trotana</b>	2021-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)

### 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)

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

4th 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 <a href="https://www.biocom.org/coronavirus/return-to-work-resources/">https://www.biocom.org/coronavirus/return-to-work-resources/</a>)

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

### **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).

### 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)

### 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)

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

### **TEACHING**

### University of Illinois, Urbana-Champaign, Chemical Engineering

1997

**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.

### Northeastern University, Bioinformatics Essentials Graduate Certification Course

Lecturer

2001

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.

### **Massachusetts Institute of Technology**

Teaching Assistant

2002-2004

Course 9.02 (Brain Laboratory), 9.00 (Psychology), 9.35 (Vision)

# University of California, San Diego

2007, 2008

Lecturer in BGGN220 (Graduate Molecular Biology) organized by Amy Pasquinelli.

### 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)

Spring 2009

Lecturer in BIOM 252 (3 hours) Human Genetics and Genomics organized by Frank Funari (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)

Fall 2009

Lecturer in BGGN220 (Graduate Molecular Biology) organized by Amy Pasquinelli (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) Spring 2010 Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and Bing Ren) (Spring 2010) Fall 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) University of California, San Diego Lecturer (Four 3-hour lectures) in BIOM 262 Quantitative Methods in Genetics organized by Bruce Hamilton Winter 2011 (Winter 2011) Course Director and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and Gene Yeo) (Winter 2011) University of California, San Diego Spring 2011 Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2011) University of California, San Diego Fall 2011 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) University of California, San Diego Lead (5 hours) Small Literature Group for Foundations of Human Biology organized by Connie Holm (Fall Fall 2011 2011) University of California, San Diego Lecturer (Four 3-hour lectures) in BIOM 262 Quantitative Methods in Genetics organized by Bruce Hamilton Winter 2012 (Winter 2012) Course Director 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) 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 Fall 2012 2012)

University of California, San Diego

Lecturer (Four 3-hour lectures) in BIOM 262 Quantitative Methods in Genetics organized by Bruce Hamilton (Winter 2013)

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)

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)

(Winter 2014) Win

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)

University of California, San Diego

Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2014)

University of California, San Diego

Lecturer (1.5 hours) in BGGN 220 Graduate Molecular Biology organized by Jens Lykke-Andersen (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: Arshad Desai and Gene Yeo)

University of California, San Diego

Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (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)

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 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>)

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

Bioinformatics Bootcamp (Aug 1-5, 2016). Course director, assisted by Emily Wheeler.

University of California, San Diego

Lecturer (2 hours) + Paper Discussion (2 hours) in BIOM200 BMS Graduate Core Course organized by Kevin Corbett and Alysson Muotri (Fall 2015)

University of California, San Diego

Lecturer (1.5 hours) in BGGN 220 Graduate Molecular Biology organized by Jens Lykke-Andersen

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 2014

Spring 2014

Winter 2015

Spring 2015

Spring 2013

Fall 2015

Winter 2016

Spring 2016

June 2016

August 2016

Fall 2016

Fall 2016

Winter 2017

### **Cold Spring Harbor Laboratory, Single Cell Analysis Course**

**July 2017** 

June 30-July 13, 2017. Co-course director, assisted by Olga Botvinnik, Emily Wheeler, Alain Domissy (https://qithub.com/olgabot/cshl-singlecell-2017)

### University of California, San Diego

Fall 2017

Lecturer (1.5 hours) in BGGN 220 Graduate Molecular Biology organized by Jens Lykke-Andersen

### University of California, San Diego

Winter 2018

Course Director (10 weeks of 6-hour lectures a week) in CMM262 Quantitative Methods in cs

<u>Course Director</u> and Lecturer (Four 3-hour lectures) in BIOM 254 Molecular and Cell Biology (directors: Arshad Desai and Gene Yeo)

# Cold Spring Harbor Laboratory, Single Cell Analysis Course

July 2018

June 29-July 14, 2018. Co-course director, teaching assistants Emily Wheeler, Alex Chaim, Brain Yee (https://github.com/ecwheele/CSHL singlecellanalyses 2018)

# University of California, San Diego

Winter 2019

<u>Course Director</u> (with Alon Goren; 10 weeks of 6-hour lectures a week) in CMM262 Quantitative Methods in Genetics

### **Cold Spring Harbor Laboratory, Single Cell Analysis Course**

July 2019

June 28-July 13, 2019. Co-course director, teaching assistants Brian Yee, Shashank Sathe, Noorsher Ahmed, Yan Song (https://meetings.cshl.edu/courses.aspx?course=C-SINGLE&year=19)

# 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

Winter 2020

<u>Co-Course Director</u> with Alon Goren (10 weeks of 6-hour lectures a week) in CMM262 Quantitative Methods in Genetics (administrative role)

Co-<u>Course Director</u> with Chris Benner (10 weeks of 6-hour lectures a week) in BIOM200C Introduction to Computational Biology

### University of California, San Diego

Spring 2020

Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Kelly Frazer and Radha Ayyagari

### University of California, San Diego

Fall 2020

Lecturer (2 hours) in BIOM 200 BMS Graduate Course organized by Wendy Huang

# University of California, San Diego

Spring 2021

Panelist (2 hours) in PHAR234: Careers in Biomedical Sciences

# University of California, San Diego

Fall 2021

Lecturer (2 hours) in BIOM 200 BMS Graduate Course organized by Wendy Huang

### 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.

- 2. 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.
- 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.
- Yeo GW\*, Van Nostrand E, Holste D, Poggio T, Burge CB\*. Identification and analysis of alternative splicing events conserved in human and mouse. *Proceedings of the National Academy of Sciences*, *USA*. 2005. Feb 22; 102(8):2850-5. PMID: 15708978.
   \*Corresponding.
- 10. Han K\*, **Yeo G**\*, An P, Burge CB, Grabowski PJ. A combinatorial code for splicing silencing: UAGG and GGGG motifs. *PLoS Biology*. 2005. May; 3(5):e158. PMID: 15828859 (\*equal contribution).
- 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*).
- 12. Van Praag, H, Lucero, MJ, **Yeo G**, Stecker K, Heivand N, Zhao C, Yip E, Afanador M, Schroeter H, Hammerstone J, Gage FH. Plant-derived flavanol (-)epicatechin enhances angiogenesis and memory in mice. *Journal of Neuroscience*, 2007. May 30;27(22):5869-78. PMID: 17537957.
- 13. Giorgi C, **Yeo G**, Stone ME, Katz DB, Burge C, Turrigiano C, Moore MJ. The EJC factor elF4AIII 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.
- 15. **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. \*Corresponding.
- 16. Zimmerman, AM, Yeo, G, Howe K, Maddox, BJ, Steiner, LA. Immunoglobulin light chains in zebrafish: genomic configurations and inversional rearrangements between (V(L)-J(L)-C(L)) gene clusters. *Dev. Comp. Immunol.* 2008. 32(4):421-34. PMID: 18022691.
- 17. Olson S, Blanchette M, Park J, Savva Y, **Yeo G**, Yeakley J, Rio D, Graveley, B. A Regulator of Dscam Mutually Exclusive Splicing Fidelity. *Nature Structural and Molecular Biology*, 2007. Dec;14(2):1134-40. PMID: 21188797.
- Calabrese JM, Seila AC, Yeo GW, Sharp PA. RNA sequence analysis defines Dicer's role in mouse embryonic stem cells.
   Proceedings of the National Academy of Sciences, USA, 2007. Nov 13;104(46):18097-102. PMID: 17989215
- Palakodeti D, Smielewska M, Liu Y, Yeo G,\* Graveley BR\*. The PIWI proteins SMEDWI2 and SMEDWI3 are required for stem cell function and piRNA expression in planarians. *RNA*, 2008. Jun;14(6):1174-86. Epub 2008 May 2. PMID: 18456843 (\*Corresponding).
- 20. Seila AC, Calabrese, JM, Levine SS, **Yeo, GW**, Rahl PB, Flynn RA, Young RA, Sharp PA, Divergent Transcription from Active Promoters. *Science*, 2008. Dec 19;322(5909):1849-51. Epub 2008 Dec 4. PMID: 19056940. (*Recommended by Faculty 1000*).

- Li H, Lovci, MT, Kwon YS, Rosenfeld MG, Fu, XD, Yeo GW. Determination of tag density required for digital transcriptome analysis: Application to an androgen-sensitive prostate cancer model *Proceedings of the National Academy of Sciences, USA*. 2008. Dec 23;105(51):20179-84. Epub 2008 Dec 16. PMID: 19088194. \*Corresponding.
- 22. **Yeo GW**\*, Coufal NG, Liang TY, Peng GE, Fu XD\*, Gage FH\* An RNA code for the FOX2 splicing regulator revealed by mapping RNA-protein interactions in stem cells. *Nature Structural & Molecular Biology*, 2009. Feb;16(2):130-7. Epub 2009 Jan 11. PMID: 19136955. \*Corresponding.
- 23. Kuwabara T, Hsieh J, Muotri A, **Yeo GW**, Warashina M, Lie DC, Moore L, Nakashima K, Asashima M, Gage FH. Wnt-mediated activation of NeuroD1 and retroelements during adult neurogenesis, *Nature Neuroscience*, 2009. 12(9):1097-105. PMID: 19701198.
- 24. Lu Y-C, Smielewska M, Palakodeti D, Lovci MT, Aigner S, **Yeo GW**\*, Graveley BR\* Deep sequencing identifies new and regulated microRNAs in Schmidtea mediterranea. *RNA*, 2009 Aug;15(8):1483-91. Epub 2009 Jun 24. PMID: 19553344. \*Corresponding.
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- 26. Coufal NG., Garcia-Perez JL, Peng GE, **Yeo GW**, Mu Y, Lovci MT, Maria M, O'Shea KS, Moran JV, Gage FH. L1 Retrotransposition in Human Neural Progenitor Cells. *Nature*, 2009. 460(7259):1127-31. PMID: 19657334. (*Recommended by Faculty 1000*).
- 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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- 30. Hinton A, Afrikanova I, Wilson M, King CC, Maurer B, **Yeo GW**, Hayek A, Pasquinelli AE. A distinct microRNA signature for definitive endoderm derived from human embryonic stem cells. *Stem Cells Dev.* 2010; Feb; 17(2):173-9. PMID: 20062054.
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- Van Wynsberghe PM, Kai ZS, Massirer KB, Burton VH, Yeo GW, Pasquinelli AE. LIN-28 co-transcriptionally binds primary let-7 to regulate miRNA maturation in Caenorhabditis elegans. *Nature Structural and Molecular Biology*, 2011. Mar;18(3):302-8. Epub 2011 Feb 6. PMID: 21297634.
- 34. Polymenidou M, Lagier-Tourenne C, Hutt KR, Huelga SC, Moran J, Liang TY, Ling S-C, Sun E, Wancewicz, E, Mazur C, Kordasiewicz H, Sedaghat Y, Donohue JP, Shiue L, Bennett FC, **Yeo GW**\*, Cleveland DW\*. Long pre-mRNA depletion and RNA missplicing contribute to neuronal vulnerability from loss of TDP-43. *Nature Neuroscience*, 2011. Apr;14(4):459-68. Epub 2011 Feb 27. PMID: 21358643. \*Corresponding. (*Recommended by Faculty 1000*).
- 35. Stark TJ, Arnold JD, Spector DH, **Yeo GW.** High-resolution profiling and analysis of viral and host small RNAs during human cytomegalovirus infection. *Journal of Virology*, 2011. PMID: 22013051. **Corresponding.**
- 36. Huelga SC, Vu AQ, Arnold JD, Liang TY, Liu PP, Yan BY, Donohue JP, Shiue L, Hoon S, Brenner B, Ares M, **Yeo GW**. Integrative genome-wide analysis reveals cooperative regulation of alternative splicing by hnRNP proteins. *Cell Reports*, 2012. PMID: 22574288. **Corresponding.**
- 37. Andrade LN, Nathanson JL, **Yeo GW**, Menck CF, Muotri AR. Evidence for premature aging due to oxidative stress in iPSCs from Cockayne syndrome. *Hum Mol Genet*, 2012. PMID: 22661500
- 38. Zhu W, Kuo D, Nathanson J, Satoh A, Pao GM, **Yeo GW**, Bryant SV, Voss SR, Gardiner DM, Hunter T. Retrotransposon long interspersed nucleotide element-1 (LINE-1) is activated during salamander limb regeneration. **Dev Growth Differ**, 2012. PMID: 22913491

- 39. Dembowski J, Ping A, Scoulos-Hanson M, **Yeo G**, Han J, Fu XD, Grabowski PJ. Alternative splicing of a novel inducible exon diversifies the CASK quanylate kinase domain. *Journal of Nucleic Acids*, 2012. PMID: 23008758
- 40. Wilbert ML, Huelga SC, Kapeli K, Stark TJ, Liang TY, Chen SX, Yan BY, Nathanson JL, Hutt KR, Lovci MT, Kazan H, Vu AQ, Massirer KB, Morris Q, Hoon S, **Yeo GW**. LIN28 binds messenger RNAs at GGAGA motifs and regulates splicing factor abundance. *Molecular Cell*, 2012. PMID: 22959275. **Corresponding** (*Recommended by Faculty 1000*).
- 41. Lagier-Tourenne C, Polymenidou M, Hutt KR, Vu AQ, Baughn M, Huelga SC, Clutario KM, Ling S-C, Liang TY, Mazur C, Wancewicz E, Kim AS, Watt A, Freier S, Hicks GG, Donohue JP, Shiue L, Bennett CF, Ravits J, Cleveland DW, **Yeo GW**. Divergent roles of ALS-linked proteins FUS/TLS and TDP-43 intersect in processing long pre-mRNAs. *Nature Neuroscience*, 2012. PMID: 23023293. **Corresponding**. (*Recommended by Faculty 1000*).
- 42. Vollmers C, Schmitz RJ, Nathanson J, **Yeo GW**, Ecker JR, Panda S, Circadian Oscillations of Protein-coding and Regulatory RNAs in a Highly Dynamic Liver Epigenome. *Cell Metabolism*, 2012. PMID: 23217262
- 43. Arnold ES, Ling SC, Huelga SC, Lagier-Tourenne C, Polymenidou M, Ditsworth D, Kordasiewicz HB, McAlonis-Downes M, Platoshyn O, Parone PA, Da Cruz S, Clutario KM, Swing D, Tessarollo L, Marsala M, Shaw CE, **Yeo GW**, Cleveland DW. ALS-linked TDP-43 mutations produce aberrant RNA splicing and adult-onset motor neuron disease without aggregation or loss of nuclear TDP-43. *Proceedings of the National Academy of Sciences, USA*, 2013. PMID: 23382207
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- 46. Cai W, Albini S, Wei K, Willems E, Guzzo RM, Tsuda M, Giordani L, Spiering S, Kurian L, **Yeo GW**, Puri PL, Mercola, M. Coordinate Nodal and BMP Inhibition Directs Baf60c-dependent Cardiomyocyte Commitment. *Genes & Development*, 2013. PMID: 24186978
- 47. Marchetto MCN, Narvaiza I, Denli AM, Benner C, Lazzarini TA, Nathanson JL, Paquola ACM, Desai KN, Herai RH, Weitzman MW, **Yeo GW**, Muotri AR, Gage FH. Differential L1 regulation in pluripotent stem cells of humans and other great apes. *Nature*, 2013. PMID: 24153179.
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- 51. Washburn MC, Kakaradov B, Sundararaman B, Wheeler E, Hoon S, **Yeo GW\***, Hundley HA\*. The dsRBP and inactive editor, ADR-1, utilizes dsRNA binding to regulate A-to-I RNA editing across the C. elegans transcriptome. *Cell Reports*, 2014. PMID: 24508457. NIHMS 557942. \*Corresponding.
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- 63. Hung T, Pratt G, Sundararaman B, Townsend MJ, Chaivorapol C, Bhangale T, Graham RR, Ortmann W, Criswell LA, **Yeo GW\***, Behrens T. The Ro60 Autoantigen Binds Endogenous Retroelements and Regulates Inflammatory Gene Expression, *Science*, 2015. PMID: 26382853. \*Corresponding.
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- 67. Van Nostrand EL, Pratt GA, Shishkin AA, Gelboin-Burkhart C, Fang M, Sundararaman B, Blue SM, Nguyen TB, Surka C, Elkins K, Stanton R, Rigo F, Guttman M, **Yeo GW**. Enhanced CLIP (eCLIP) enables robust and scalable transcriptome-wide discovery and characterization of RNA binding protein binding sites, *Nature Methods*, 2016. **Corresponding.** PMID: 27018577. (*Recommended by Faculty 1000*).
- 68. Nelles DA, Fang M, O'Connell MR, Xu JL, Markmiller SJ, Doudna JA, **Yeo GW.** Programmable RNA tracking in Live Cells with CRISPR/Cas9, *Cell*, 2016. Corresponding. PMID: 26997482. (*Recommended by Faculty 1000, Top 100 stories in 2016 in Discover magazine, Dec 2016).*
- 69. Conway AE, Van Nostrand EL, Pratt GA, Aigner S, Wilbert ML, Sundararaman B, Freese P, Lambert NJ, Sathe S, Liang TY, Essex A, Landais S, Burge CB, Jones DL, **Yeo GW**. Enhanced CLIP uncovers IMP protein-RNA targets in human pluripotent stem cells important for cell adhesion and survival. *Cell Reports*, 2016. **Corresponding**. PMID: 27068461
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- 151. Washington NL, Gangavarapu K, Zeller M, Bolze A, Cirulli ET, Schiabor Barrett KM, Larsen BB, Anderson C, White S, Cassens T, Jacobs S, Levan G, Nguyen J, Ramirez JM, Rivera-Garcia C, Sandoval E, Wang X, Wong D, Spencer E, Robles-Sikisaka R, Kurzban E, Hughes LD, Deng X, Wang C, Servellita V, Valentine H, De Hoff P, Seaver P, Sathe S, Gietzen K, Sickler B, Antico J, Hoon K, Liu J, Harding A, Bakhtar O, Basler T, Austin B, Isaksson M, Febbo P, Becker D, Laurent M, McDonald E, Yeo GW, Knight R, Laurent LC, de Feo E, Worobey M, Chiu C, Suchard MA, Lu JT, Lee W, Andersen KG. Emergence and rapid transmission of SARS-CoV-2 B.1.1.7 in the United States. *Cell*, 2021. PMID: 33861950.
- 152. Pirie E, Oh CK, Zhang X, Han X, Cieplak P, Scott HR, Deal AK, Ghatak S, Martinez FJ, **Yeo GW**, Yates JR 3rd, Nakamura T, Lipton SA. S-nitrosylated TDP-43 triggers aggregation, cell-to-cell spread, and neurotoxicity in hIPSCs and in vivo models of ALS/FTD. *Proc Natl Acad Sci*, 2021. PMID: 33692125.
- 153. Jourdain AA, Begg BE, Mick E, Shah H, Calvo SE, Skinner OS, Sharma R, Blue SM, **Yeo GW**, Burge CB, Mootha V. Loss of LUC7L2 and U1 snRNP subunits shifts energy metabolism from glycolysis to OXPHOS. *Molecular Cell*, 2021. PMID: 33852893.
- 154. Sanchez II, Nguyen TB, England WE, Lim RG, Vu AQ, Miramontes R, Byrne LM, Markmiller S, Lau AL, Orellana I, Curtis MA, Faull RLM, **Yeo GW**, Fowler CD, Reidling JC, Wild EJ, Spitale RC, Thompson LM. Huntington's disease mice and human brain tissue exhibit increased G3BP1 granules and TDP43 mislocalization. J Clin Invest. 2021. PMID: 33945510.
- 155.Brannan KW, Chaim IA, Marina RJ, Yee BA, Kofman ER, Lorenz DA, Jagannatha P, Dong KD, Madrigal AA, Underwood JG, **Yeo GW**. Robust single-cell discovery of RNA targets of RNA binding proteins and ribosomes. *Nature Methods*, 2021. PMID: 33963355
- 156. Einstein JM, Perelis M, Chaim IA, Meena JK, Nussbacher JK, Tankka AT, Yee BA, Li H, Madrigal AA, Neill NJ, Shankar A, Tyagi S, Westbrook TF, **Yeo GW**. Inhibition of YTDHF2 triggers proteotoxic cell death in MYC-driven breast cancer. *Molecular Cell*, 2021. PMID: 34216543
- 157. Fenix AM, Miyaoka Y, Bertero A, Blue S, Spindler MJ Tan KKB, Perez-Bermejo J, Chan AH, Mayer SJ, Nguyen T, Russell CR Lizarraga P, Truong An, Po-Lin So, Kulkarni A, Chetal K, Sathe S, Sniadecki NJ, **Yeo GW**, Murry CE, Conklin BR, Salomonis N. Gain-of-function cardiomyopathic mutations in RBM20 rewire splicing regulation and re-distribute ribonucleoprotein granules within processing bodies. *Nature Communications*, 2021.
- 158.Herzner A-M, Khan Z, Van Nostrand EL, Chan S, Cuellar T, Chen R, Pechuan-Jorge X, Komuves L, Solon M, Modrusan Z, Haley B, **Yeo GW**, Behrens TW, Albert ML. Adar and hnRNP C deficiency synergize in activating endogenous dsRNA-induced type I IFN responses. *J Exp Med*, 2021. PMID: 34297039
- 159.Tan FE, Sathe S, Wheeler EC, **Yeo GW**. Non-microRNA binding competitively inhibits LIN28 regulation. *Cell Reports*, 2021. PMID: 34380031
- 160. Markmiller S, Sathe S, Server KL, Nguyen TB, Fulzele A, Cody N, Javaherian A, Broski S, Finkbeiner S, Bennett EJ, Lecuyer E, Yeo GW. Persistent mRNA localization defects and cell death in ALS neurons caused by transient cellular stress. *Cell Reports*, 2021. PMID: 34496257
- 161. Wheeler EC, Vora S, Mayer D, Kotini AG, Olszewska M, Park S, Guccione E, Teruya-Feldstein J, Silverman L, Sunahara R, **Yeo GW**\*, Papapetrou EP\*. Integrative RNA-omics discovers GNAS alternative splicing as a phenotypic driver of splicing factor-mutant neoplasms. *Cancer Discovery*, 2021. (\*Corresponding) PMID: 34620690
- 162. Corley M, Flynn RA, Blue SM, Yee BA, Chang HY, **Yeo GW**. fSHAPE, fSHAPE-eCLIP and SHAPE-eCLIP probe transcript regions that interact with specific proteins. *STAR Protocols*, 2021. PMID:34485935.
- 163. Keehner J, Horton LE, Binkin NJ, Laurent LC on behalf of the SEARCH Alliance\*, Pride D, Longhurst CA, Abeles SR, Torriani FJ. Resurgence of SARS-CoV-2 infection in a highly vaccinated health system workforce. *NEJM*, 2021. \*I am a founder, and my lab members are part of the SEARCH Alliance. PMID: 34469645.

# INVITED REVIEWS AND BOOK CHAPTERS (CHRONOLOGICAL ORDER)

- 1. Yeo G. Splicing regulators: targets and drugs. Genome Biology, 2005. 6(12):240. PMID: 16356274.
- 2. Cao X, **Yeo G**, Muotri A, Kuwabara T and Gage FH. Noncoding RNAs in the Mammalian Central Nervous System. *Annual Review of Neuroscience*. 2006. 29:77-103. PMID: 16776580.
- Van Nostrand E, Yeo G. Evolutionarily conserved intronic splicing elements in the human genome. The Encyclopedia of Life Sciences, 2008.

- Yeo GW, Coufal N, Aigner S, Winner B, Scolnick JA, Marchetto MC, Muotri, AR, Carson C, Gage FH. Multiple layers of molecular controls modulate self-renewal and neuronal lineage specification of embryonic stem cells. *Hum Mol Genetic*. 2008. PMID: 18632700.
- Aigner S, Yeo G. Terminal Differentiation: REST. Developmental Neurobiology, ed. Greg Lemke, Elsevier, Aug 2009.
- Nelles DA, Yeo GW. Alternative splicing in stem cell self-renewal and differentiation. Adv Exp Med Biol. 2010; 695:92-104. PMID: 21222201.
- Wilbert ML, Yeo GW. Genome-wide approaches in the study of microRNA biology. Wiley Interdiscip Rev Syst Biol Med. 2010. PMID: 21197653.
- 8. Zisoulis DG, **Yeo GW**, Pasquinelli AE. Comprehensive identification of miRNA target sites in live animals. *Methods Mol Biol.* 2011; 732:169-85. PMID: 21431713.
- Lovci MT, Li H-R, Fu XD, Yeo GW. RNA-seq analysis of Gene expression and alternative splicing by doublerandom priming strategy. *Methods Mol Biol*. 2011; 729:247-55. PMID: 21365495.
- 10. Huelga, SC, **Yeo GW**. Genomics of Alternative Splicing in Stem Cells, "Computational Biology of Embryonic Stem Cells", edited by Zhan, Bentham Scientific, 2011.
- 11. Polymenidou M, Lagier-Tourenne C, Hutt KR, Bennett CF, Cleveland DW, **Yeo GW.** Misregulated RNA processing in amyotrophic lateral sclerosis. *Brain Res.*, 2012. PMID: 22444279
- 12. Kapeli K, **Yeo GW**. Genome-wide approaches to dissect the role of RNA binding proteins in translation control: implications of neurological diseases. *Frontiers in Neurogenomics*, 2012. PMID: 23060744
- 13. Nussbacher JK, Batra R, Lagier-Tourenne C, **Yeo GW**. RNA-binding proteins in neurodegeneration: Seq and you shall receive. *Trends in Neurosciences*, 2015. PMID: 25765321
- 14. Singh G, Pratt G, **Yeo GW**, Moore MJ, The Clothes make the mRNA: past and present trends in mRNP fashion. *Annu. Rev. Biochem.* 2015. 84:29.1–29.30. DOI: 10.1146/annurev-biochem-080111-092106. PMID: 25784054
- 15. Nelles DA, Fang MY, Aigner S, Yeo **GW**. Applications of Cas9 as an RNA-programmed RNA-binding protein. *Bioessays*. 2015 Jul;37(7):732-9. doi: 10.1002/bies.201500001. PMID:25880497
- Tan FE, Yeo GW. Blurred Boundaries: The RNA binding protein Lin28A is also an epigenetic regulator. Molecular Cell. 2016. PMID:26748607
- Van Nostrand EL, Huelga SC, Yeo GW. Experimental and computational considerations in the study of RNA binding protein-RNA interactions. *RNA processing, Disease and genome-wide probing.* Series Title: Adv Exp Med Biol, Vol. 907. doi:10.1007/978-3-319-29073-7\_1. PMID:27256380
- Bos TJ, Nussbacher JK, Aigner S, Yeo GW. Tethered function assays as tools to elucidate the molecular roles of RNA binding proteins. *RNA processing, Disease and genome-wide probing.* Series Title: Adv Exp Med Biol, Vol. 907. doi: 10.1007/978-3-319-29073-7
   PMID:27256382
- 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

- Corley M, Burns MC, Yeo GW. How RNA binding proteins interact with RNA: molecules and mechanisms. *Molecular Cell*, 2020. PMID:32243832
- 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

### **BOOKS PUBLISHED (CHRONOLOGICAL ORDER)**

- 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)

- 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).
- 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).
- 11. 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. 42nd 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)
- 88. 4th next generation sequencing and 2nd 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 (ORGANIZER 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)
- 178.22nd 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)
- 182.2nd 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)
- 193.3rd 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)
- 196.4th 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 3<sup>rd</sup> 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)
- 253.5th 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)
- 259.1st 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 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)

### **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 0.12 calendar

Simons Autism Foundation Annual: \$125,000 Entire Period: \$250,000

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) 02/01/2021-01/31/2022 0.45 calendar

NIH/NHGRI Annual: \$87,421 (Yeo) Entire period: \$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

**Grant # 2020-217276** 03/01/2020-02/28/2022 0.01 calendar

Chan Zuckerberg Initiative Annual: \$87,500 (Yeo) Entire Period: \$175,000

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 iPSC-derived 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 0.30 calendar

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-seq, 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) 09/22/2017-05/31/2022 1.80 calendar

NIH/NINDS 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-seq and TEMPO-seq data in the efficacy and safety studies.

Role: Contact MPI

U01 MH115747-03S1 07/01/2020-06/30/2022 0.46 calendar

NIH/NIMH Annual: \$320,353 (Yeo) Entire Period: \$640,706

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 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

Annual: \$754,078 (Yeo) Entire Period: \$1,576,357 (Yeo) NIH/NHGRI

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-Seq, knockdown RNA-seq, 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 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)

Entire period: \$315,100

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

Annual: \$307.046 (Yeo) NIH/NIAID 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

Allen Distinguished Investigator Award

08/05/2020-08/05/2023

2.40 calendar

Paul G. Allen Family Foundation

Annual: \$500.000

Entire Period: \$1,500,000

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

Annual: \$348,728 (Yeo) Entire Period: \$1,785,909

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)

\$815,965 (Yeo)

Dissecting the role of FMRP in RNA processing using human stem cell models

Entire Period:

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-seg 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

Entire Period: \$1.785.909 Annual: \$348.728 (Yeo)

The goal of this project is to develop a novel scalable technology, reagent resource, experimental protocols and a computational

STAMP technology to enable single-cell and isoform-sensitive detection of RBP sites

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

Annual: \$219,722

Entire Period: \$434,444

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 (1st 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)

### **COMPLETED GRANTS**

**R56 AG069098** (Yeo) 09/30/2020-08/31/2021

NIH/NIA Annual: \$419.995 Entire Period: \$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

R01 Al123202 (Chang, Yeo)

09/23/2016-08/31/2021

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)

09/01/2020-08/31/2021

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

**1U19 MH107367 (**Yeo) 07/01/15-06/30/20

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 quantitative 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)

03/01/2016-02/28/2021

NIH/NICHD

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.

Reconstruction of cardiovascular regulatory networks from large-scale single-cell analyses of cardiovascular lineages.

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

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) 8/1/2015-7/31/2018

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)

9/1/2014-6/30/15

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)

01/01/2009-12/31/2012

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)

10/01/2009-9/30/2012

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

In this project, we will focus on comprehensively identify transcribed RNAs in human pluripotent stem cells that are directly targeted by RNA binding proteins important in pluripotency.

Role: PI

### CIRM RB3-05219 Basic Biology III (Yeo, Spector)

10/01/2011-9/30/2014

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

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

10/01/2011-9/30/2014

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)

12/1/2012-11/30/2015

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

# CIRM RB4-06045 Basic Biology IV (Yeo)

3/01/2013-2/28/2016

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) 8/1/2011-7/31/2013

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) 01/01/2012-01/01/2014

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 (Yeo, Goldstein)

04/01/2011-03/31/2014

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)

06/01/2014-05/31/2015

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)

02/15/2012-01/31/2017

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)

06/01/2011-05/31/2014

NIH/NHGRI

Functional RNA elements in the human genome

In this multi-PI project, we will couple the CLIP (crosslinking immunoprecipitation) technology with high-throughput sequencing based on the Illumina/Solexa system to identify in vivo binding sites for RNA binding proteins in human 293 cells. We will focus on RNA binding proteins implicated in both constitutive and regulated pre-mRNA processing. We will perform profiling of alternative splicing in addition to physical mapping, which will enable the bioinformatics analysis necessary to decode the functional RNA elements in the human genome.

Role: PI

### 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)

5/01/2011-4/30/2016

09/01/2012-8/31/2016

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)

09/1/2014-8/31/16

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)

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.	
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 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 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.	
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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	Bioengineeri ng	2015-2020	Scientist at Ionis	Taiwan government Fellowship
Past	Jaclyn Einstein	Bioengineeri ng	2015-2020	Postdoc	ARCS Award (2018-2019), NIH F31 Fellowship, CBIO Training Grant
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	Bioengineeri ng	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	Bioinformati cs	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	Neuroscienc e	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	Neuroscienc e	2020-current	current student	NIH Grant
Current	Sam Hatch	BMS	2021-current	current student	NIH Grant
Current	Norah Al-Azzam	Neuroscienc e	2021-current	current student	NIH Grant
Current	Hema Kopalle	Biology	2021-current	current student	NIH Grant

# PHD/MS THESIS COMMITTEE CHAIR/CO-CHAIR/(MEMBER by default)

Anthony Quoc Vu, Biology (Graduated, Fred Gage's Lab), MS, Summer 2008
Beverly Chen, (Graduated, Michael Rosenfeld's Lab), MS, Fall 2010
Mary Winn, BMS (Graduated, Nick Schork's Lab), PhD, Fall 2011, **Co-Chair**Benjamin O'Connor, Biology (Graduated, Jean Wang's Lab), PhD, Spring 2012
Lorne Walker, BMS (Graduated, Doug Richman's Lab), PhD, Summer 2013
Gloria Kuo Lefkowitz, BMS (Graduated, Ben Yu's Lab), PhD, Winter 2012
Boris Reznik, Biology (Graduated, Jens Lykke-Andersen's Lab), PhD, Fall 2012
Mark Kuei-Chun Wang, Bioengineering (Graduated, Shu Chien's Lab), PhD, Fall 2012
Gregory Dane Clemenson, Biology (Graduated, Fred Gage's Lab), PhD, Winter 2012

Yunghui Chang, Biology (Graduated), MS, Fall 2011

Wesley Gifford, Group in Neurosciences (Graduated, Sam Pfaff's Lab), PhD, Spring 2013

Nisha Rajagopal, Bioinformatics (Graduated, Bing Ren's Lab), PhD, Fall 2013

Shannon Muir, BMS (Graduated, Karen Arden's Lab), PhD, Summer 2014

Jeremy Coleman Davis-Turak, Bioinformatics (Graduated, Alex Hoffman's Lab), PhD, Summer 2014, Co-chair

Charles Thomas, BMS (Graduated, Alysson Muotri's Lab), PhD, Summer 2014

Qi Ma, Bioinformatics (Graduated, Michael Rosenfeld's Lab), Winter 2015, Co-chair

Gary Johnston, Material Science (Graduated, Sung Ho Jin's Lab), PhD, Spring 2015

Eleen Shum, BMS (Graduated, Miles Wilkinson's Lab), PhD, Spring 2015

Allan Acab, BMS (Graduated, Alysson Muotri's Lab), PhD, Spring 2015

Sol Reyna, BMS (Graduated, Larry Goldstein's Lab), PhD, Summer 2015

Daria Merkurjev, Bioinformatics (Graduated, Michael Rosenfeld's Lab), PhD, Fall 2015

Rui Fu, Biology (Graduated, Lykke-Andersen's Lab)

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 Pfaff's Lab)

Lauren Fong, BMS (Graduated, Larry Goldstein's Lab), PhD,

Steven Lee Ceto (Graduated, SPAC Advisor)

Amy Michelle Chinn (Graduated, SPAC Advisor)

Martha Flores, Biology (Graduated, Kees Murres's Lab)

Elaine Pirie, BMS (Graduated, John Ravit's Lab), Co-chair, PhD

Layla Fijany, Biology (Graduated, Yeo Lab), Advisor

Jonathan Grinstein, BMS (Graduated, Neil Chi's Lab)

Sarah Anne Barnhill, Materials Sciences (Graduated, Nathan Gianneschi's Lab)

Alexander Sinclair Hamil (Graduated, Steve Dowdy's Lab)

Polly Pu Huang, BMS (Graduated, Pamela Mellon's Lab)

Charles Bradford Larson (Graduated, Bradley Moore/Victor Nizet's Lab)

Naomi Ellen Searle, BMS (Graduated, Lorraine Pillus' Lab)

Kristopher Standish, BMS (Graduated, Nicholas Schork's Lab), Co-chair

Nicholas Vinckier, BMS (Graduated, Maike Sander's Lab)

Soohwan Oh, Biology (Graduated, Michael Rosenfeld's Lab)

Olubankole Adebayo (Graduated, John Ravits lab)

Danielle Marie Garshott (Graduated, Eric Bennet's lab)

Anna Guzikowski (Graduated, Brian Zid's lab)

Angela Nicholson (Graduated, Amy Pasquinelli's lab)

Delanev Pagliuso (Graduated, Amy Pasquinelli's lab)

Alison Parisian (Graduated, Frank Furnari's lab)

Sam Roth (Graduated, Chris Benner's lab)

Jacob Wozniak (Graduated, David Gonzalez's lab)

William Bradford (Graduated, Farah Sheikh's lab)

Ember Tota (Graduated, Neal Deveraj's lab)

Warren Chan (Graduated, Michael Burkart's lab)

Wenyuan Wei (Graduated, Yeo lab ), Masters

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 Amatya (Graduated, Rusty Gaeg'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 Reyna - 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