#### 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 National Research Foundation Visiting Investigatorship, Singapore Visiting Professor, National University of Singapore, Singapore geneyeo@ucsd.edu



Dr. Gene Yeo is an expert in the areas of RNA, computational biology, genomics and neurological diseases. Dr. Yeo obtained a bachelor of science in chemical engineering and a bachelor of arts in economics from the University of Illinois, Urbana-Champaign (1998) and a master's degree in business administration from the Rady School of Management at the University of California, San Diego (2008). Funded by the Lee Kuan Yew Graduate Fellowship from Singapore, Dr. Yeo earned a Ph.D. in Computational Neuroscience (2005) from the Massachusetts Institute of Technology under the joint guidance of Dr. Tomaso Poggio and Dr. Christopher Burge. Using comparative genomics and statistical learning theory Dr. Yeo pioneered new computational approaches to attack the problem of splicing and splicing-mediated gene regulation. In 2005 Dr. Yeo was appointed the first Junior Fellow at the Crick-Jacobs Center for Theoretical and Computational Biology at the Salk Institute under the mentorship of Dr. Fred Gage and Dr. Sean Eddy. Dr. Yeo's collaborative nature has generated successful projects and grants with experts in neuroscience and neurodegeneration (Dr. Fred Gage and Dr. Don Cleveland), RNA processing (Nobel Laureate Dr. Phillip Sharp, Dr. Manuel Ares, Jr. Dr. Brenton Graveley, Dr. Xiangdong Fu and Dr. Amy Pasquinelli) and virology (Dr. Deborah Spector). In late 2008, Dr. Yeo was appointed an Assistant Professor in the Department of Cellular and Molecular Medicine at UCSD. In 2011, Dr. Yeo was awarded the Alfred P Sloan Fellowship in recognition of his work in computational molecular biology. In 2014, Dr. Yeo was promoted with tenure to Associate Professor at UCSD. In 2016. Dr. Yeo was accelerated to Full Professor. Since 2003. Dr. Yeo has authored over 100

peer-reviewed publications, invited book chapters, review articles in the areas of neurodegeneration, RNA processing, computational biology and stem cell models and served as Editor on several books on RNA binding proteins. In 2017, Dr. Yeo was awarded the inaugural Early Career award by the international RNA Society. Dr. Yeo has successfully authored 4 and co-authored 2 grants from the California Institute of Regenerative Medicine totaling \$8.5 million. Dr. Yeo has served as Principal Investigator (PI) or co-PI on several NIH R01, U19 and U54 grants. The ALS Association, Takeda, Genentech and Roche Pharmaceuticals funded Dr. Yeo's work. Dr. Yeo is on the Scientific Advisory Boards of several biotech companies, actively serves as a bioinformatics and business consultant to biotech and pharmaceutical companies, and is a co-founder at start-ups Enzerna, Eclipsebio, ProteoNA and Locana. Dr. Yeo is on the Editorial Board of the journals *Cell Reports* and *Cell Research*. Dr. Yeo is a Visiting Professor at the National University of Singapore, an Adjunct Senior Research Scientist at the Genome Institute of Singapore and a visiting researcher at the Molecular Engineering Laboratory under Nobel Laureate Sydney Brenner's auspices. Dr. Yeo 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. Dr. Yeo has completed 2 full Ironman-distance and multiple half-ironman-, olympic-, sprint-distance triathlons, full marathons and half-marathons.

Contact information:
University of California San Diego
Sanford Consortium for Regenerative
Medicine
2880 Torrey Pines Scenic Drive
La Jolla, CA 92037
858-534-9321 (office)
geneyeo@ucsd.edu

# Gene W. Yeo

PhD MBA

Full Professor (with tenure)

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

#### **RESEARCH INTERESTS**

- ♦ Gene regulation: 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.
- RNA-targeting CRISPR/Cas: My lab published the first demonstration of targeting RNA in live cells using the CRISPR/Cas9 technology in 2016 and we are pursuing multiple avenues of applications ranging from therapeutic intervention of neuromuscular diseases to single cell RNA imaging.
- Neurological diseases: My lab studies the molecular basis of mental disorders such as autism spectrum disorders and neurodegenerative diseases (ALS) using in vitro stem cell models and in vivo mice models.
- ♦ Virus-host interactions: My lab reveals new insights into how DNA viruses affect the host transcriptome.

Molecular Medicine

and Molecular Medicine
Institute for Genomic Medicine

Associate Professor, Department of

Assistant Professor, Department of Cellular

Cellular and Molecular Medicine

• Single cell technologies and analysis: My lab develops machine-learning approaches to single cell RNA-seq/DNA analysis and visualization tools.

#### **EDUCATION AND TRAINING**

EDUCATION AND TRAINING		
Salk Institute, La Jolla, CA	Junior Fellow, Crick-Jacobs Center for Computational and Theoretical Biology; Senior Fellow Mentors: Fred Gage and Sean Eddy	July 2005-Sept 2008
University of California, San Diego, CA	Masters of Business Administration at the Rady School of Management	Sept 2006- Aug 2008
Massachusetts Institute of Technology, Cambridge, MA	Ph.D. in Computational Neuroscience, Department of Brain and Cognitive Sciences; Advisors: Christopher Burge and Tomaso Poggio, Members: Phillip Sharp and Martha Constantine-Paton.	Sept 2000- Feb 2005
University of Illinois, Urbana- Champaign, IL	Bachelor of Science (B.S.) in Chemical Engineering, Highest Honors, Supervisor: Charles Zukoski. Bachelor of Arts (B.A.) in Economics, High Honors	1994-1998
PRIMARY FACULTY APPOINTMENTS		
University of California, San Diego, CA	Full Professor, Department of Cellular and	July 1 2016-current

July 1 2014-June 30 2016

Oct 2008-June 30 2014

UCSD Stem Cell Program
UCSD Moores Cancer Center
Bioinformatics Graduate Program
Biomedical Sciences Graduate Program
Material Science and Engineering
Graduate Program

#### **OTHER APPOINTMENTS**

National University of Singapore Consultant (Visiting Professor), Aug 2013-present

Department of Physiology

Adjunct Assistant Professor, Department of Aug 2009-Aug 2013

**Biological Sciences** 

A\*STAR Adjunct Senior Research Scientist, Aug 2013-present

Genome Institute of Singapore

Visiting Professor, Molecular Engineering Aug 2009-present

Laboratory.

## 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.

Affymetrix, Santa Clara, CA

Research Technician

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 2000

Research Technician

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 2004-2006

**Bioinformatics Consulting** 

Co-founder, GeneBytes 2008-2010

Bioinformatics Consultant 2011-current

Clients include: ISIS Pharmaceuticals, Sequenom, Roche

Scientific Advisory Board Member, Aquinnah 2014-current

Scientific Advisory Board Member, Interpreta

Co-founder, Enzerna

Co-founder and Chair of the Scientific Advisory Board, Locana

Co-founder and Scientific Advisory Board member, ProteoNA

Co-founder and Scientific Advisory Board member, ECLIPSEBIO

Scientific Advisory Board member, Ribometrix

2014-current
2016-current
2017-current
2017-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)

Inaugural RNA Society's Early Career Award, 2017

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

#### PROFESSIONAL ASSOCIATIONS AND ACADEMIC SERVICE

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

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

The American Institute of Chemical Engineers (1997-present)

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

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

The Phi Beta Kappa Honor Society (1997-present)

The Golden Key Honor Society (1997-present)

The RNA Society (2005-present)

International Society of Computational Biology (2005-present)

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

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

RNA society meeting (2015, May, Poster judge)

BIOCOM CRO Steering Committee (2015-current)

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

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

#### 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 co-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)

#### 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)

## 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)

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

Structured course syllabus and co-taught a 12 week course in microarray data analysis,

2001

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 Fall 2009 Field (Fall 2009) Lecturer in BGGN220 (Graduate Molecular Biology) organized by Amy Pasquinelli (Fall 2009) University of California, San Diego Winter 2010 Lecturer (Four 3-hour lectures) in BIOM 262 Quantitative Methods in Genetics organized by Bruce Hamilton (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) University of California, San Diego Fall 2010 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 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 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 Spring 2014 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 Fall 2014 2014) University of California, San Diego Winter 2015 Course Director (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 Spring 2015 Lecturer (3 hours) in BIOM 252 Genetics and Genomics organized by Frank Funari (Spring 2015) University of California, San Diego Fall 2015 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 Winter 2016 Course Director (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:

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

University of California, San Diego

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

August 2016

#### University of California, San Diego

Fall 2016

Lecturer (2 hours) + Paper Discussion (X hours) in BIOM 200 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 (Fall 2016)

Fall 2016

### University of California, San Diego

Winter 2017

<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 2017)

<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 2017

June 30-July 13, 2017. Co-course director, assisted by Olga Botvinnik, Emily Wheeler, Alain Domissy

#### 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.
- Yeo G and Burge C. Maximum entropy modeling of short sequence motifs with applications to RNA splicing signals. *Journal of Computational Biology*, 2004; 11(2-3):377-94. PMID: 15285897.
- 5. Fairbrother WG, **Yeo, G,** Yeh, R, Goldstein, P, Mawson, M, Sharp PA, Burge CB. RESCUE-ESE identifies candidate exonic splicing enhancers in vertebrate exons. *Nucleic Acids Res*, 2004. PMID: 15215377.
- 6. **Yeo G,** Hoon S, Venkatesh B, and Burge C.B. Variation in the splicing regulatory elements and their organization in vertebrate genomes. *Proceedings of the National Academy of Sciences, USA*, 2004. PMID: 15505203.
- 7. **Yeo G**, Holste D, Kreiman G, Burge CB. Variation in alternative splicing across human tissues. *Genome Biol.* 2004; 5(10):R74. PMID: 15461793.
- 8. Wang Z, Rolish ME, **Yeo G**, Tung V, Mawson M, Burge CB. Systematic identification and analysis of exonic splicing silencers. *Cell.* 2004. Dec 17; 119(6):831-45. PMID: 15607979.
- 9. **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.
- 18. 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
- 19. 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.
- 25. Thuret S, Toni N, Aigner S, **Yeo GW**, Gage FH. Hippocampus-dependent learning is associated with adult neurogenesis in MRL/MpJ mice. *Hippocampus*, 2009. Jul;19(7):658-69. PMID: 19140178.
- 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.
- 28. Xue Y, Zhou Y, Wu T, Zhu T, Ji X, Kwon YS, Zhang C, **Yeo G**, Black DL, Sun H, Fu XD, Zhang Y. Genome-wide analysis of PTB-RNA interactions reveals a strategy used by the general splicing repressor to modulate exon inclusion or skipping. *Mol Cell*, 2009. Dec 25;36(6):996-1006. PMID: 20064465. (*Recommended by Faculty 1000*).
- 29. Zisoulis DG, Lovci MT, Wilbert ML, Hutt KR, Liang YL, Pasquinelli AE, **Yeo GW.** Comprehensive discovery of endogenous Argonaute binding sites in C. elegans. *Nature Structural & Molecular Biology*, 2010. Feb;17(2):173-9. Epub 2010 Jan 10. PMID: 20062054. **Corresponding.**
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- Yeo GW, Editor, RNA processing: Disease and genome-wide probing. Advances in Experimental Medicine and Biology. Volume 907, Springer, 2016.

#### **INVENTIONS**

MIRESQUE: Software for microRNA gene prediction from high-throughput sequencing, copyrighted (2008)

Patent filed on "Regression-based methods for exon array analysis" invented by Gene Yeo, Fred Gage (2008)

Patent filed on "GREPSEQ: An almost inexhaustible, cost-effective, high-throughput protocol for the generation of selector sequences" invented by Gene Yeo, Jonathan Scolnick, Fred Gage (2008)

Patent disclosure for Programmable CRISPR/Cas for RNA applications at UCSD with Dave Nelles (2015)

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

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

- 1. RECOMB 2003: Seventh annual international conference on research in computational molecular biology, April 10-13, Berlin, Germany, 2003. Yeo, G, and Burge, C.B. Maximum entropy modeling of short sequence motifs with applications to RNA splicing signals (SELECTED TALK).
- 2. ISMB 2003: Intelligent systems for molecular biology conference, June 29-July 3, Brisbane, Australia, 2003. Yeo, G, Hoon, S and Burge C. Genomics of vertebrate splicing regulatory elements (BEST POSTER AWARD).
- 3. Eukaryotic mRNA processing meeting, Aug 20-24, Cold Spring Harbor Laboratory, 2003. Yeo, G, Hoon, S and Burge C. Variation in sequence and organization of splicing regulatory elements in vertebrate genes (POSTER).
- 4. RNA 2004: Ninth annual meeting of the RNA society, June 1-6, Madison, Wisconsin, 2004. Yeo, G, Holste D, Van Nostrand, E, Poggio, T and Burge, C.B. Predictive discrimination of conserved skipping events in human and mouse (SELECTED TALK).
- 5. SFN 2004: Society for Neuroscience, San Diego, 2004. Yeo, G, Van Nostrand, E, Holste D, Poggio, T and Burge, C.B. Predictive identification of alternative exons in mammals reveals neural-specific and RNA binding functions (POSTER).
- 6. Alternative Splicing Special Interest Group Meeting at Intelligent systems for molecular biology (ISMB), 2005. Identification and analysis of alternative splicing events conserved in human and mouse (INVITED TALK).
- 7. Regulatory RNAs, May 31-June 5, Cold Spring Harbor Laboratory, 2006. Rest-regulated MicroRNAs (POSTER).
- 8. RNA 2006. Highly conserved intronic elements proximal to mammalian exons predict tissue-specificity of alternatively spliced exons (POSTER).
- 9. RNA 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 2008. CLIP-Seq reveals a network of FOX2 regulated alternatively spliced exons in human embryonic stem cells (SELECTED TALK).
- 22. RNA 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. 16<sup>th</sup> Conversation, Albany, 2009. Alternative splicing and stem cells (INVITED TALK).
- 26. Alternative Splicing Special Interest Group Meeting at ISMB 2009 (Stockholm). Intelligent systems for molecular biology conference, 2009 Analysis of RNA binding networks (DISTINGUISHED SPEAKER).
- 27. Eukaryotic mRNA Processing Meeting, Aug18-Aug 22, Cold Spring Harbor Laboratory, 2009 (SELECTED TALK).
- 28. San Diego Consortium for Systems Biology (SDCSB) Next-Gen Sequencing Workshop, Aug 25, 2009 (INVITED TALK)
- 29. Keystone Conference on RNA Silencing: Mechanism, Biology and Application, Keystone, Colorado, Jan 14-19, 2010 (INVITED TALK)
- 30. Alternative Splicing in Neurodegenerative Diseases and Cancer, Tel Aviv, Israel, Feb 7-9, 2010 (INVITED TALK)
- 31. UCLA Bioinformatics Series Invited Speaker April 5, 2010 (INVITED TALK)
- 32. UCSD Physics of Evolution Series, August 21-Sept 2, 2010 (INVITED TALK)
- 33. From the RNA world to the Clinic, Janelia Farms, Sept 26-29, 2010 (INVITED TALK)
- 34. XVIII World Congress on Psychiatric Genetics, Athens, Greece, October 3-7, 2010 (1 INVITED TALK, 1 SELECTED TALK)
- 35. Institute for Genomic Medicine, October 11, 2010 (INVITED TALK)
- 36. First Workshop of the Postgraduate Program of the Genetics Department, Ribeirao Preto, Brazil, November 26-27, 2010 (KEYNOTE SPEAKER)
- 37. Integrated Biological Systems Seminar, Scripps Translational Science Institute, Feb 15, 2011 (INVITED TALK)
- 38. Cambridge HealthTech, XGEN Congress, San Diego, March 17, 2011 (INVITED TALK)
- 39. Genomics Institute of Norvatis, La Jolla, March 18, 2011 (INVITED TALK)
- 40. 42<sup>nd</sup> Annual Meeting, American Society for Neurochemistry, March 19-23, 2011 (INVITED TALK)
- 41. Invited Seminar, Department of Human Genetics, University of Chicago, April 8, 2011 (INVITED TALK)
- 42. Workshop organized by the French National Research Agency (ANR) and California Institute for Regenerative Medicine (CIRM), July 12-13, 2011 (INVITED TALK)
- 43. Alternative Splicing Special Interest Group Meeting at ISMB July 15-16, 2011 (Vienna). Intelligent systems for molecular biology conference, 2011 (INVITED SPEAKER).
- 44. Merck-Serono, NeuroDegenerative Diseases, 19 July, 2011 (INVITED SPEAKER)
- 45. Roche, Basel, 22 July, 2011 (INVITED SPEAKER)
- 46. Eukaryotic mRNA processing meeting, Aug 23-27, Cold Spring Harbor Laboratory, 2011 (POSTER).
- 47. CONNECT's Frontiers in Science and Technology, Oct 11, 2011 (INVITED SPEAKER).
- 48. 6<sup>th</sup> 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. 8<sup>th</sup> 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 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. 4<sup>th</sup> next generation sequencing and 2<sup>nd</sup> single cell genomics asia congress organized by Oxford Global, Singapore, 7 Oct, 2014 (KEYNOTE SPEAKER)
- 89. National Neuroscience Institute Research Seminar Series, Singapore, 9 Oct 2014 (INVITED SPEAKER)
- 90. ALS Association Investigator Research Workshop, PA 19-22 Oct 2014 (INVITED SPEAKER)
- 91. BaCaTec Wolfgang Summer School Lecture, San Diego, 12 Nov 2014 (INVITED SPEAKER)
- 92. BD Single Cell Genomics Symposium, San Jose, 13 Nov 2014 (INVITED SPEAKER)
- 93. RECOMB/ISCB Conference on Regulatory & Systems Genomics, 9-14 Nov 2014 (KEYNOTE SPEAKER)
- 94. Beckman Seminar Series, City of Hope, 18-19 Jan 2015 (INVITED SPEAKER)
- 95. The Buck Institute for Research on Aging Seminar Series, 23 Jan 2015 (INVITED SPEAKER)
- 96. Fluidigm's event: Beyond Biology's Next Frontier. La Jolla, 11 March 2015 (KEYNOTE SPEAKER)
- 97. Wayne State University School of Medicine Lecture Series, Detroit, 2 April 2015 (INVITED SPEAKER)
- 98. Protein-RNA Workshop hosted by McGill, Bellairs Research Institute, Barbados, 17-22 April 2015 (INVITED SPEAKER)
- 99. Stein Clinical Research Institute, University of California, San Diego, La Jolla, 1 May 2015 (INVITED SPEAKER)
- 100. Microbiology and Molecular Genetics Seminar Speaker, University of California, Irvine, 6 May 2015 (INVITED SPEAKER)
- 101.Advances and challenges in protein-RNA, Banff International Research Station, 7-12 June 2015 (INVITED SPEAKER)
- 102. Single Cell Analysis Course, Cold Spring Harbor Laboratory, 3-16 June 2015 (INVITED SPEAKER)
- 103.UC Santa Cruz COAT RNA Informatics Summer School (LECTURER) and RNA SUMMIT CONFERENCE (INVITED SPEAKER)
- 104. Alnylam Pharmaceuticals, Cambridge, MA, 17 August 2015 (INVITED SPEAKER)
- 105.CECAD Noncode RNA symposium, Cologne, Germany, 24 August 2015 (INVITED SPEAKER)
- 106. University of London, Dept of Neurology, London, 26 August, 2015 (INVITED SPEAKER) hosted by Jernej Ule
- 107. University of London, RNA Club, London, 27 Aug 2015 (INVITED SPEAKER) hosted by Andres Ramos
- 108. Rady School of Management, UCSD, Biotech Demystified Lecture, 14 Sept 2015 (INVITED SPEAKER)
- 109. Bioinformatics Bootcamp, UCSD, 18 Sept 2015 (INVITED SPEAKER)
- 110. Riboclub Conference, Magog, Canada, 22 Sept 2015 (INVITED SPEAKER)
- 111.IRCM, Montreal, Canada, 24 Sept 2015 (INVITED SPEAKER)
- 112. Festival of Genomics, San Mateo, 5 Nov 2015 (INVITED SPEAKER)
- 113 Sixth Annual California ALS Research Summit, La Jolla, 9 Jan 2016 (INVITED SPEAKER)
- 114. Plant and Animal Genome XXIV, Post-transcriptional gene regulation. San Diego, 10 Jan 2016 (INVITED SPEAKER)
- 115. Invitae, San Francisco, 18 Feb, 2016 (INVITED SPEAKER)
- 116. Biomedical Sciences Graduate Program Recruitment, 26 Feb, 2016 (INVITED SPEAKER)
- 117. Lawrence Berkeley National Laboratory, Berkeley, CA, 1 March, 2016 (INVITED SPEAKER)
- 118.10<sup>th</sup> 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)
- 178.22<sup>nd</sup> Annual RNA Society Meeting, Prague, June 3, 2017 (EARLY CAREER AWARD RECEIPIENT'S TALK)
- 179. Dagstuhl "Computational challenges in RNA-based gene regulation:protein-RNA recognition, regulation and prediction", Germany, June 18-21, 2017 (INVITED SPEAKER)
- 180.Max-Delbruck-Center for Molecular Medicine, BIMSB Seminar Series, Germany, June 22, 2017 (INVITED SPEAKER)
- 181.Max-Delbruck-Center for Molecular Medicine, SysBio lecture series on "Reprogramming, development and genome editing", Germany, June 23, 2017 (INVITED SPEAKER)
- 182.2<sup>nd</sup> International Symposium for Noncoding RNA Neo-Taxonomy, University of Tokyo, Japan, June 26, 2017 (INVITED SPEAKER)
- 183 Naito conference on Non-coding RNAs, Hokkaido, Japan, June 30, 2017 (INVITED SPEAKER)
- 184. Single Cell Analysis Course, Cold Spring Harbor Laboratory, July 3, 2017 (COURSE INSTRUCTOR AND SPEAKER)
- 185. Neuroscience and behavioral disorder seminar series at Duke-NUS Medical School, Aug 3, 2017 (INVITED SPEAKER)
- 186.Otto Warburg International Summer School and Research Symposium on RNA biology, Shanghai, China, Aug 14-18, 2017 (LECTURER AND INVITED SPEAKER)

- 187. Eukaryotic mRNA Processing Meeting, Cold Spring Harbor Laboratory, Aug 22-26, 2017 (SESSION CHAIR & GAVE 2 SELECTED TALKS & 1 POSTER).
- 188. International Myotonic Dystrophy Consortium, San Francisco, Sept 5-9, 2017 (KEYNOTE SPEAKER)
- 189. Science 1st: Designing Nucleic Medicines, JLabs, La Jolla, Sept 13, 2017 (INVITED SPEAKER)
- 190. UCSD Institute for Genomic Medicine Member Meeting, UCSD, La Jolla, Sept 14, 2017 (INVITED SPEAKER)
- 191. Cell Biology Virtual Event, Sept 21, 2017 (INVITED SPEAKER)
- 192.13<sup>th</sup> Annual meeting of the Oligonucleotide Therapeutics Society, Bordeaux, France, Sept 24-27, 2017 (INVITED SPEAKER) 193.3<sup>rd</sup> annual RNA biology symposium by the Cancer science institute at NUS, Singapore, 2017 (CO-ORGANIZER)
- 194.5<sup>th</sup> annual Single Cell Analysis Asia Congress by Oxford Global, Singapore, October 10-11, 2017 (INVITED SPEAKER)
- 195.UT Southwestern Medical Center's Gene Regulation and Genomics Seminar Series, Dallas, October 16, 2017 (INVITED SPEAKER)
- 196.4<sup>th</sup> Animal Models of Neurodegenerative Diseases, PIGMOD Center, Czech Republic, October 22-24, 2017 (INVITED SPEAKER, ONLINE)
- 197.CZI Science and NYSCF Workshop, New York, October 30-31, 2017 (INVITED SPEAKER)
- 198. American Association of Pharmaceutical Scientists, Challenges and Opportunities for Gene Editing and Delivery, San Diego, Nov 15, 2017 (INVITED SPEAKER)
- 199, UCSD Postdoc Appreciation Luncheon, 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)

#### **COURSES/COURSEWORK ATTENDED**

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**

#### **NIH GRANTS**

Gene Yeo (contact PI)

R01NS103172

NIH/NINDS

Therapeutic strategies for microsatellite expansion diseases using RNA-targeting CRISPR/Cas

The major goal of this project is to develop optimized methods for improving the RNA-targeting CRISPR/Cas9 system for myotonic dystrophy.

Gene Yeo (contact PI)

1U19 MH107369-01

07/01/15-06/30/20

9/22/17-05/31/22

NIH/NIMH

Collaboration on preclinical autism cellular assays, biosignatures, and network analyses (Copacabana)

The major goal of the project is to develop and optimize cellular differentiation and characterization protocols and disease-relevant assays using hIPSCs, focusing on developing robust, replicable and transparent platforms and diagnostic tools to enable new biology to be discovered, relevant to Autism Spectrum Disorder (ASD).

John Chang (contact PI), Gene Yeo (multi-PI)

R01 Al123202

09/23/16-08/31/21

Using single-cell RNA-seq to interrogate host immunity to pathogens

Mortality from infectious diseases remains a leading cause of death worldwide, making the development of new vaccines an important priority of biomedical research. Immunologic memory is a cardinal feature of adaptive immunity and an important goal of vaccination strategies. Traditional vaccination strategies are very effective at generating neutralizing antibodies against bacteria and viruses. However, a vaccine capable of generating robust T lymphocyte memory is still beyond our research, due, in part, to an incomplete understanding of the molecular basis of lymphocyte fate specification. In this proposal, we will develop single-cell approaches to study

specification of lymphocyte fates in response to microbial infection.

Gene Yeo (contact PI), Neil Chi (multi-PI)

R01 HD085902-01

NIH/NICHD

03/01/2016-02/28/2021

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

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

Gene Yeo (PI)

ALSA VC8370

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.

Gene Yeo (PI)

ALSA 17-IIP-352

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

#### **COMPLETED GRANTS**

Gene Yeo (co-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

Gene Yeo (PI)

R01 GM084317-01A1 (Ares, M, Contact PI)

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.

Gene Yeo (PI)

CIRM RB1-01413 Basic Biology I

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.

Gene Yeo (Co-investigator)

CIRM RB3-05219 Basic Biology III

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.

Gene Yeo (PI)

CIRM RB3-05009 Basic Biology III

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.

Gene Yeo (PI)

CIRM TR3-05676 Early Translation III

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.

Gene Yeo (PI)

CIRM RB4-06045 Basic Biology IV

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.

Gene Yeo (PI)

ALSA VC8K27

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.

Gene Yeo (PI)

Roche EIN Grant 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.

Gene Yeo (Co-investigator)

CIRM RT2-01927 Tools and Technologies II

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.

Gene Yeo (PI)

Brain Research Foundation Grant BRFSG-2014-14

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.

Gene Yeo (PI)

1 R01 NS075449-01A1

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.

Fu, X-D, Gene Yeo (multi-PI)

R01 HG004659-03

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.

Gene Yeo (co-PI)

U54HG007005 (Graveley, B, Contact PI)

09/01/2012-8/31/2016

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.

Gene Yeo (PI)

U01 HL107442-01 (Frazer, K, Contact PI)

5/01/2011-4/30/2016

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.

Gene Yeo (co-PI)

1 R01Al095277-03S1 (Chang, Contact PI)

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.

## **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
Past	Katlin Massirer	2010-2011	<b>Faculty</b> (Professor), State University of Campinas, Sao Paulo, Brazil
Past	Kasey Hutt	2010-2014	Bioinformatics Scientist, R&D, Invivoscribe, San Diego
Past	Jason Nathanson	2009-2014	Scientist II, R&D, Sequenom, San Diego
Past	Leo Kurian	2013-2014	<b>Faculty</b> (Group leader), Cologne University, Germany
Past	Suzanne Lee	2013-2014	Faculty, Western Washington University, Bellingham, WA
Past	Katannya Kapeli	2012-2015	Senior Research Fellow at National University of Singapore
Current	Tomas Bos	2012-current	BAEF – Belgian American Education Foundation
Current	Sebastian Markmiller	2011-current	Larry L Hilblom Fellowship
Current	Eric Van Nostrand	2012-current	Damon Runyon Cancer Fellowship
Current	Kristopher Brannan	2014-current	CIRM Post-doc Fellowship; UC President's Fellowship
Current	Yan Song	2011-current	NIH Grant
Current	Frederick Tan	2015-current	NIH Grant
Current	Ron Batra	2015-current	Myotonic Dystrophy Association Fellowship
Current	Ashleigh Schaffer	2015-current	<b>Faculty</b> (Assistant Professor) at Case Western Reserve University, previous NIH K99 Award

Graduate (PhD) students (2008-current)

Past / Current Trainee	Trainee Name	Training Period	Current Position of Past Trainee /Source of Support for Trainee
Past	Melissa Wilbert	2008- 2014	Computational Biologist, Norvartis, Boston/ Genetics Training Program and CIRM Predoc Fellowship
Past	Stephanie Huelga	2009- 2014	Bioinformatics Scientist at Nugen /NSF Graduate Fellowship
Past	Michael Lovci	2009- 2014	Postdoc in Germany/NSF GK12 Fellowship, Gift from Genentech
Past	Thomas Stark	2008- 2014	Postdoc at CDC/ UCSD Genetics Training Program
Past	Anne Conway	2008-	Postdoc at UCSD/ Genetics Training Program

09/1/2014-8/31/16

		2014	
l Past I	Boyko	2012-	Bioinformatics Scientist, Human Longevity
	Kakaradov	2015	Institute/ NSF Graduate Fellowship
Past	David Nelles	2010-	NSF Graduate Fellowship
i asi		2016	
Current	Julia	2012-	NIH T32 Cancer cell Training Grant
Current	Nussbacher	current	
Past	Fernando	2012-	NIH Genetics Training Grant
1 451	Martinez	current	Will deficies training drain
Current	Gabriel Pratt	2012-	NSF Graduate Fellowship
Ourient	Gubilot i futt	current	Their diaddate i cliowerip
Current	Olga Botvinnik	2013-	NDSEG Fellow, John Hunter Open Source
Ourient	Olga Botviilliik	current	Fellow
Current	Mark Fang	2015-	MSTP program, NIH grant (Yeo)
Garront	Want rang	current	
Current	l een Jamal	2013-	NSF Graduate Fellowship
Carront	20011 Gaintai	current	
Current Em	Emily Wheeler	2015-	NIH grant (Yeo)
Carront	Zilliy Wildoldi	current	Tim grant (100)
Current	En-ching Luo	2015-	Taiwan government Fellowship, NIH grant
Carront	En oning Edo	current	(Yeo)
Current	Jaclyn Einstein	2015-	NIH grant (Yeo)
Julient	odolym Emotem	current	
Current	Zhaoren He	2015-	Joint student with Kees Murres
Current		current	
Current	Matthew Hunt	2015-	Joint student with Mark Tuszynski
Julient		current	

### 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 (Current, Larry Goldstein's Lab)

Steven Lee Ceto (Current, SPAC Advisor)

Amy Michelle Chinn (Current, SPAC Advisor)

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

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

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

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

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

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

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

Charles Bradford Larson (Current, Bradley Moore/Victor Nizet's Lab) Soohwan Oh, Biology (Current, Michael Rosenfeld's Lab) Naomi Ellen Searle, BMS (Current, Lorraine Pillus' Lab) Kristopher Standish, BMS (Current, Nicholas Schork's Lab), **Co-chair** Nicholas Vinckier, BMS (Current, Maike Sander's Lab)

#### **SERVED ON MINOR PROPOSITION COMMITTEE**

Shannon Muir – Committee Member, 2009
Jesse Dixon – Committee Member, 2010
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

#### Undergraduate/Masters Students (selection)

Eric Van Nostrand, 2004-2006, graduated with a PhD from Stanford Melody Chang, 2009-2012, Masters student, graduated with her Masters. Ashley Wu, 2012-current.

Jeremy Chang, 2012-current.
Govind Raghavan, 2011-current.

Yiu Cheung Wong, 2011-current.
Bernice Yan, 2010-current.

Jade Laguer, 2012-current.

Truc Nguyen, 2012-current.

Jonathan Day, 2012-current
Layla Fijany, 2014-current.

## HOBBIES

Endurance sports (Half and full Ironman triathlons, Half and full marathons), Sailing

#### Prof. Fred Gage

Professor, Laboratory of Genetics, Salk Institute 10010 North Torrey Pines Road La Jolla, CA 92037 Phone: (858) 453-4100 gage@salk.edu

## Prof. Terry Sejnowski

Professor, Computational Neuroscience Laboratory 10010 North Torrey Pines Road La Jolla, CA 92037 Phone: (858) 453-4100 terry@salk.edu

## **Prof. Christopher Burge**

Associate Professor, Dept. Biology, MIT. 77 Massachusetts Ave., 68-223 Cambridge, MA 02139-4307 Phone: (617) 258-5997 cburge@mit.edu

## Prof. Phillip Sharp

Institute Professor, Dept. Biology, MIT. 77 Massachusetts Ave., E17-529B Cambridge, MA 02139-4307 Phone: (617) 253-6421 sharppa@mit.edu

#### **Prof. Brenton Graveley**

Department of Genetics and Developmental Biology University of Connecticut Health Center MC3301 263 Farmington Avenue Farmington, CT 06030-3301 Phone: (860) 679-2092 Fax: (860) 679-8345 graveley@neuron.uchc.edu

#### **Prof. Tomaso Poggio**

Professor, Dept. Brain and Cognitive Sciences,McGovern Institute of Brain Research, Center for Biological and Computational Learning, Computer Science and Artificial Intelligence Laboratory 77 Massachusetts Ave., E25-201 Cambridge, MA 02139 tp@ai.mit.edu

## Prof. Sean Eddy

HHMI Janelia Farm eddys@janelia.hhmi.org

## **Prof. Sydney Brenner**

Distinguished Research Professor, The Salk Institute, La Jolla, USA sbrenner@salk.edu

## Prof. Xiang-Dong Fu

University of California San Diego Cellular & Molecular Medicine - 0651 9500 Gilman Drive La Jolla CA 92093-0651 Phone: (858) 534-4937 Fax: (858) 534-8549 xdfu@ucsd.edu

## **Prof. Melissa Moore**

Professor, Dept. Biochemistry and Molecular Pharmacology University of Massachusetts Medical School LRB 825, Lab 870P-T Phone: 508-856-8014

Melissa.Moore@umassmed.edu