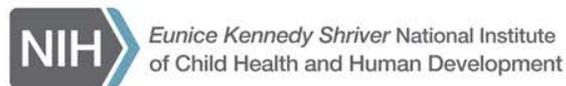


Eunice Kennedy Shriver National Institute of
Child Health & Human Development
Division of Intramural Research

Constantine A. Stratakis, MD, D(med)Sci
Scientific Director

Open Session Report
September 21, 2016, 9:20 am





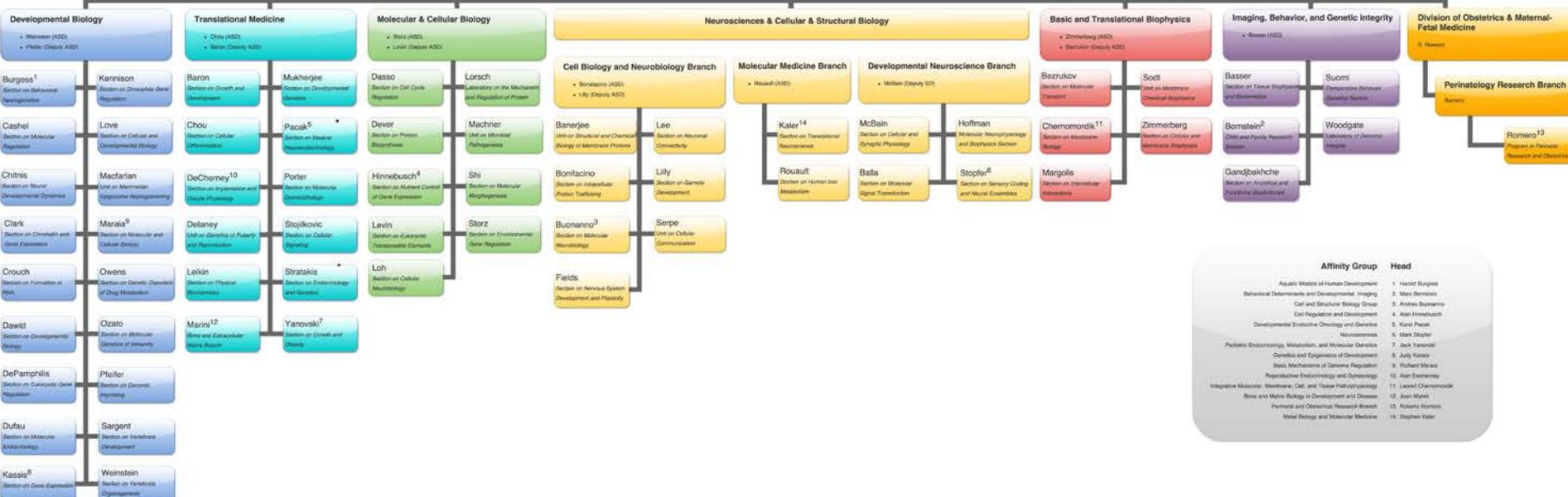
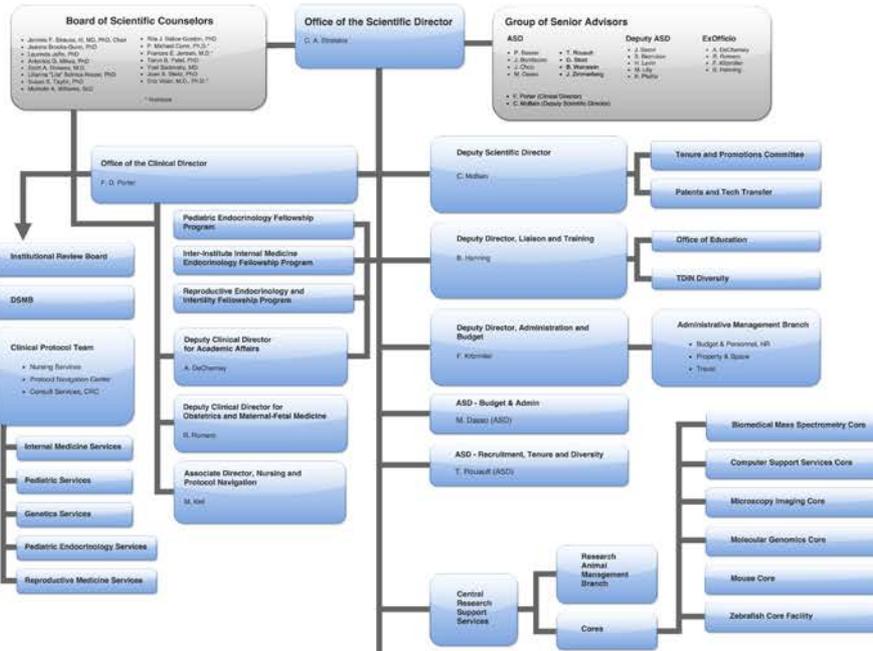
NICHD DIR by the Numbers

- Total personnel of more than 1100 employees
 - 65 PIs (59 Tenured; 6 Tenure-Track as of Jan 1, 2017)
 - 4 retirements in FY16; 1 more in FY17
- >100 Clinical Protocols
 - ~2/3 at the NIH Clinical Center
- Accredited medical training programs:
 - Pediatric Endocrinology
 - Adult Endocrinology
 - Reproductive Endocrinology and Infertility
 - Medical Genetics (with NHGRI)
 - Perinatal Research and Obstetrics (Wayne State Univ/PPRO)



Division of Intramural Research

* Indicates Affinity Group head
 (October, April, 2014)



Affinity Group	Head
Aquatic Models of Human Development	1. Harold Burgess
Behavioral Development and Developmental Imaging	2. Alan Bernstein
Cell and Structural Biology Group	3. Andrea Bonanno
Cell Regulation and Development	4. Alan Hinnebusch
Developmental Endocrine Ontology and Genetics	5. Karol Pacak
Developmental Neurosciences	6. Alan Stopfer
Embryonic, Molecular, and Molecular Genetics	7. Jack Yanovski
Genetics and Epigenetics of Development	8. Judy Koenig
Basic Mechanisms of Genome Regulation	9. Rafael Marais
Reproductive Endocrinology and Ontogeny	10. Alan DeCherney
Integrative Molecular, Behavioral, Cell, and Tissue Pathophysiology	11. Lorenz Dumortier
Basic and Molecular Biology in Development and Disease	12. Joan Maniatis
Perinatal and Obstetrical Research Branch	13. Roberto Romero
Metal Biology and Molecular Medicine	14. Stephen Kaler

Affinity Group Membership

Aquatic Models of Human Development

Burgess, Harold [Head]

Chitnis, Ajay
Dawid, Igor
Feldman, Ben (Core)
Sargent, Tom
Weinstein, Brant

Developmental Endocrine Oncology and Genetics

Pacak, Karel [Head]

Backlund, Peter (Core)
Lodish, Maya (Training Program)
Stratakis, Constantine

Basic Mechanisms of Genome Regulation

Maraia, Richard [Head]

Cashel, Mike
Clark, David
Crouch, Bob
Depamphilis, Melvin
Woodgate, Roger

Behavioral Determinants and Developmental Imaging

Bornstein, Marc [Head]

Basser, Peter
Gandjbakhche, Amir
Margolis, Leonid
Suomi, Stephen

Neurosciences

Stopfer, Mark [Head]

Balla, Tamas
Fields, Douglas
Hoffman, Dax
Loh, Y Peng
McBain, Chris

Reproductive Endocrinology and Gynecology

Decherney, Alan [Head]

Cell and Structural Biology Group

Buonanno, Andres [Head]

Banerjee, Anirban
Bonifacino, Juan
Lilly, Mary
Machner, Matthias
Storz, Gisela

Pediatric Endocrinology, Metabolism, and Molecular Genetics

Yanovski, Jack [Head]

Baron, Jeff
Chou, Janice
Delaney, Angela
Merke, Deborah (CC)
Mukherjee, Anil
Porter, Forbes

Integrative Molecular, Membrane, Cell, and Tissue Pathophysiology

Chernomordik, Leonid [Head]

Bezrukov, Sergey
Sodt, Alexander
Stojilkovic, Stanko
Zimmerberg, Joshua

Cell Regulation and Development

Hinnebusch, Alan [Head]

Dasso, Mary
Dever, Tom
Dufau, Maria
Lee, Chi-Hon
Levin, Henry
Lorsch, Jon (NIGMS)
Owens, Ida
Serpe, Mihaela
Shi, Yun-Bo

Genetics and Epigenetics of Development

Kassis, Judy [Head]

Kennison, Jim
Love, Paul
Macfarlan, Todd
Ozato, Keiko
Pfeifer, Karl

Bone and Matrix Biology in Development and Disease

Marini, Joan [Head]

Leikin, Sergey

Perinatal and Obstetrical Research Branch

Romero, Roberto [Head]

Metal Biology and Molecular Medicine

Kaler, Stephen [Head]

Rouault, Tracey



Affinity Group Process

- NICHD DIR investigators proposed Affinity Group areas
- Leadership clustered Affinity Group Titles
- Management Advisory Group verified and validated titles
- NICHD DIR investigators self-assembled into proposed affinity groups
- 2-10 PIs per Affinity Group
- Site Visit scheduling to be conducted in parallel
- Each Affinity Group developed plan
 - Mission & Vision
 - Research Plan & Goals
 - Unique features and innovations
 - Shared resources / infrastructure
- To date 43 PIs have selected a secondary affinity groups, a total of 79 secondary affiliations



NICHD Board of Scientific Counselors

Rita Balice-Gordon, PhD	Pfizer	Neuroscience
Jeanne Brooks-Gunn, PhD	Columbia	Dev Psych/Behavioral Sci
P. Michael Conn, PhD	Texas Tech	Cell & Mol Bio/Neuro/Endo
Laurinda Jaffe, PhD	U of Connecticut	Biochemistry
Frances Jensen, MD	U of Pennsylvania	Neuroscience
Antonios Mikos, PhD	Rice University	Bioengineering/Biophysics
Tarun Patel, PhD	Albany	Mol Bio/Pharmacology
Scott Rivkees, MD	U of Florida	Pediatric Endocrinology
Yoel Sadovsky, MD	Magee-Womens/Pitt	Rep Bio/Obstetrics/Gynecology
Lilianna Solnica-Krezel, PhD	WUSTL	Developmental Biology
Joan Steitz, PhD	Yale	Molecular Biology
Jerome Strauss, III, MD PhD (Chair)	Virginia Commonwealth	Obstetrics/Gynecology
Susan Taylor, PhD	UCSD	Struc Bio/Mol Biochem
Eric Vilain, MD, PhD	UCLA	Mol & Human Genetics
Michelle Williams, ScD	Harvard	Epidemiology



NICHD Board of Scientific Counselors



New BSC Chair, as of July 2016:

Scott A. Rivkees, MD

Professor, Nemours Eminent Scholar and Chair,
Department of Pediatrics, University of Florida
Physician in Chief, Shands Hospital for Children

Expertise: Pediatric Endocrinology



NICHD Board of Scientific Counselors

Kate G. Ackerman, MD

Expertise: Developmental Biology, Genetics, & Pediatrics

Associate Professor,
Departments of Pediatrics and Biomedical Genetics,
University of Rochester Medical Center



Serdar E. Bulun, MD

Expertise: Obstetrics & Gynecology

John J. Sciarra Professor and Chair,
Department of Obstetrics and Gynecology,
Northwestern University Feinberg School of Medicine





Office of the Clinical Director Reorganization: New Recruits

Simona Bianconi, MD

Staff Clinician – Genetics



Jenny E. Blau, MD

Staff Clinician – Co-Chief, Internal Medicine
Associate Program Director, Inter-Institute
Endocrinology Training Program

Andrew P. Demidowich, MD

Staff Clinician – Co-Chief, Internal Medicine
Liaison, NICHD Medical Research Scholars





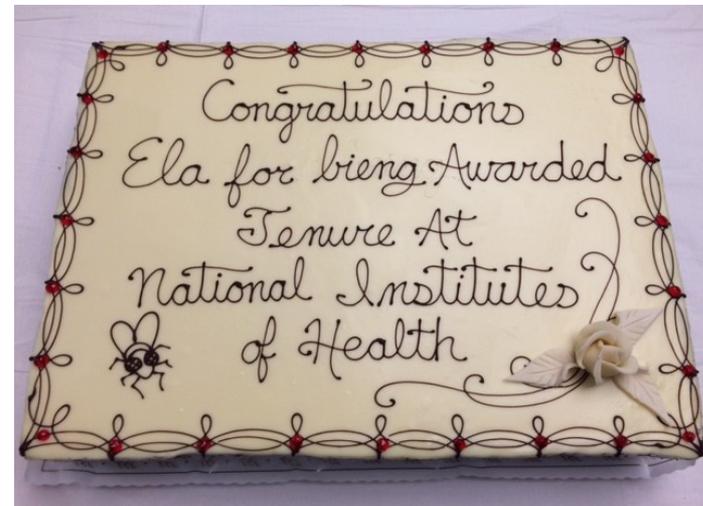
Honors & Awards

Mihaela Serpe, PhD

Head, Unit on Cellular Communication

Awarded Tenure

February 1, 2016





Honors & Awards



Matthias Machner, PhD

Head, Section on Microbial
Pathogenesis

Awarded Tenure

March 21, 2016



NICHD DIR Competitive Awards

NICHD DIR Director's Awards, FY16

- Two years of funding
 - FY14-15, \$3M
 - FY16-17, \$2M, 8 of 25 applications funded
- Established pursuant to a recommendation in the July 2013 Blue Ribbon Panel Report to create competitive research opportunities with a collaborative focus among investigators, and to support new research ideas.
- Uses a modified application based on an R-21, and an expedited administrative review process with the support of NICHD's Division of Extramural Research and a panel of NIH extramural reviewers.



NICHD DIR Director's Awards, FY16-17

PI	Collaborators	Title
Baron, Jeffrey	Roche, Katherine W (NINDS) McBain, Chris Delaney, Angela	The role of DLG2/PSD-93 in the initiation of puberty and the impact of mutations on NMDA receptor signaling and pubertal disorders
Chernomordik, Leonid Margolis, Leonid	Love, Paul	Syncytin-carrying exosomes in placental induction of regulatory T cells: a mechanism of maternal/fetal tolerance
Dasso, Mary	Serpe, Mihaela Oliver, Brian (NIDDK)	Mechanistic analysis of IRBIT protein function in tissue homeostasis
Kassis, Judy	Pfeifer, Karl	The role of the Wapal, a regulator of cohesin removal, in development and disease
Love, Paul	Pfeifer, Karl Fan, Ruzong (DIPHR) Dave, Uptal (Vanderbilt) Ehrlich, Lauren (UT Austin)	Investigating the role of Ldb1 transcription complexes in T cell Acute Lymphoblastic Leukemia
Marini, Joan	Yanovski, Jack David, Nicolae V (Northwestern)	PEDF-PPAR α -CyclophilinA/B pathway modulates osteogenesis and adipogenesis
Stopfer, Mark Lee, Chi-Hon		Neural Mechanisms of Gustatory Coding
Weinstein, Brant	Bonifacino, Juan	Regulation of endocytic trafficking by the microtubule motor dynein



NICHD DIR Competitive Awards

Human Placenta Project (HPP) Awards

- Funding through the NICHD Director
- Annually since FY14; \$200K-\$300K for 2-3 awards; \$360K in FY15 for 4 awards (2%)
- To support studies with potential to advance the goals of NICHD's Human Placenta Project. The HPP seeks to improve current methods, and develop new technologies, for real-time monitoring of human placental development and function across pregnancy and to apply these technologies to understand and monitor, in real time, human placental development and function in normal and abnormal pregnancies.



NICHD HPP Awards, FY16

PI Name(s)	Project Title
Gandjbakhche, Amir	Real Time Oximetry of Anterior Placenta Using Near Infrared Spectroscopy (Renewal of Previous Funding)
Macfarlan, Todd	Quantifying placental gene expression from maternal plasma-isolated cell-free nucleic acids for real-time monitoring of placental health (New)



NICHD DIR Competitive Awards

Zika Virus Research Awards

- Funding through the NICHD Director
- One-time award; Up to \$200K for 4-6 awards
- To support studies with potential to advance our understanding of Zika virus-related morbidity. Studies are needed to investigate how Zika virus infection affects reproduction, pregnancy, and the developing fetus. Notable is the link of the virus to the increase in cases of microcephaly among newborn babies. Basic and clinical research are needed to address a range of pressing questions.



Zika Virus Research Awards, FY16

PI Name(s)	Project Title
Chernomordik, Leonid Zimmerberg, Joshua	Zika Virus Entry into the Cells: Assays and Mechanisms (\$56K)
Margolis, Leonid	Pathogenesis and Transmission of Zika Virus in Human Tissue <i>ex vivo</i> (\$29K)



Opportunities for Collaborations at the NIH Clinical Center (U-01)



- **Goal:** to support collaborative research projects aligned with NIH efforts to enhance the translation of basic biological discoveries into clinical applications that improve health
- Up to \$500K/year x 3 years, renewable
- Teams **must** have one extramural and one intramural co-PI
- Some of the work **must** be done at the CC
- NICHD: 2 awards in Cycle 1
2 awards in Cycle 2
3 applications in Cycle 3

LOI's /X02's	CYCLE 1	CYCLE 2
	Total	Total
Applications	51	33
Awards	10	5 (to-date)
Success Rate	20%	18%



Diversity Initiatives

- **NICHD Developing Talent Scholars**
(Postbacs/Grad Students):

2 postbacs continuing, 2 new recruits
in FY16

- Oluwadamilola Bankole (Levin Lab)
- Amber Simmons (Basser Lab)

- **Fellows Recruitment Incentive
Award** (Postdocs)

- Anna Roberts-Pilgrim (Leikin Lab)





Online Annual Progress Report System for Postdocs and Clinical Fellows

- Report your progress and set goals for the coming year
- A career planning tool: think about your next career move, from a holistic view, and learn what your career interests are
- Plan your future, using myIDP to create an Individualized Development Plan

Fellows Annual Progress Report

[PRINT VIEW](#)

Report Sections	Status	Action
Personal Information	Completed	Edit
PAST YEAR Research and Career Development Activities	Completed	Edit
COMING YEAR Research and Career Development Activities	Completed	Edit
Career Goals	Completed	Edit
Mentor's Comments/Feedback	Not Started	View

- I understand that my submission represents an electronic signature, and acknowledges that all of the information on this report is accurate.
- I have met with my mentor to discuss my career development, performance and progress for the past year, and their expectations for the coming year.

Submit for Review

You can review and edit your information prior to submission by clicking "Print View"



Annual Progress Reports will be included in BSC site visits

Fellows Annual Progress Report

COMING YEAR Research and Career Development

Publications

Please list PROPOSED titles and authors of any projected publications for the coming year

PROPOSED Title

1.

PROPOSED Author(s)

Conferences and Meetings

Provide the names of conferences/meetings you would like to attend during the coming year

Meeting Name:

Proposed Presentation Title:

1. Date:

oral presentation poster presentation no presentation required

Grants and Fellowships

Provide the names of grants/fellowships you are applying for in the coming year

1. Funding Mechanism:

Application Deadline:

Job Searching Plans

Check all that apply.

1. Apply to an academic faculty position(s)

Teaching-Intensive

Research-Intensive

Combined Research and Teaching Careers

2. Apply to a non-academic position(s)

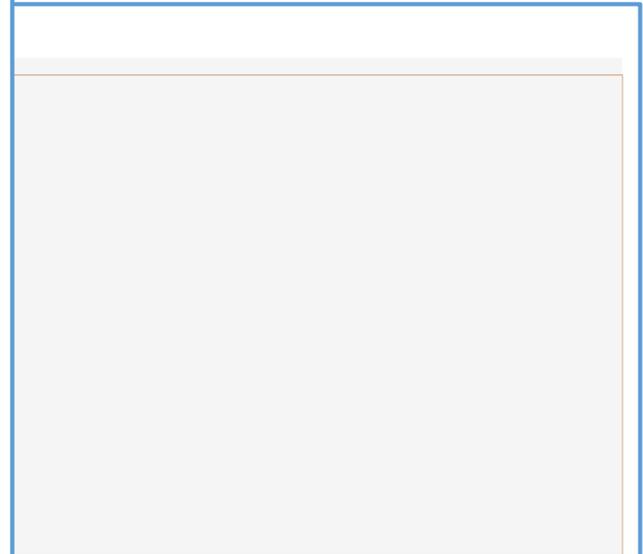
Industry Science Education

Science Policy Science Writing

Consulting Government Administration

Patent Law/Technology Transfer Government Research

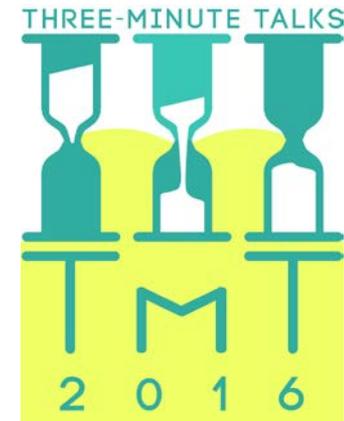
Other, please specify:





Three-minute Talks (TmT): Science Communication Training and Awards Program

- In 2016, 13 intramural NICHD, NHGRI, and NIDCR postdoc fellows and graduate students competed
- NICHD finalists and top three winners will receive travel/training support and their talk will be professionally produced for a video clip



Dr. Alex Szatmary: 3rd place winner

Section on Cell Biophysics
Mentor: Dr. Ralph Nossal





Thank you!