



SOCIETY OF POSTDOCTORAL SCHOLARS
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

SOPS.BECKMAN.ILLINOIS.EDU

**6th ANNUAL POSTDOCTORAL RESEARCH
SYMPOSIUM**

FEBRUARY 5, 2016

Beckman Foyer and Room 1005, Beckman Atrium

8:00 9:00 Registration and Light Breakfast, Assemble Posters

Auditorium: Opening Remarks

9:00 9:10 Welcome from SOPS, Bradly Alicea

9:10 9:15 Remarks from Postdoctoral Affairs Office, Karen Ruhleder

Auditorium: Session 1: Chair, Bradly Alicea

Meng Jiang

9:20 9:35 *Modeling Complex Behavior in Social Media (1.1)*

Katrina Cummings

9:35 9:50 *Understanding Parental Engagement within Families of Children with Disabilities in Rural Communities (1.2)*

Enrique Valera

9:50 10:05 *Multiplexed detection of clinically-relevant biomarker panels using a silicon photonic biosensing platform (1.3)*

Hillary Schwarb

10:05 10:20 *Hippocampal viscoelasticity and relational memory performance (1.4)*

Marian Breuer

10:20 10:35 *Towards a whole-cell computational model of a minimal cell (1.5)*

Beckman Foyer and Room 1005

10:35 11:00 Break (coffee, water, tea)

Beckman Auditorium

Keynote, Dr. Adam Kruse (School of Music)

11:00 12:00 Bring the Noise: Challenging the Relationships Between Hip-Hop and School Music

Beckman Foyer and Room 1005, Beckman Atrium

12:00 12:30 Lunch

12:30 2:00 Poster Session

Auditorium: Session 2: Chair, Maryam Shakira

Sumbul Khan

2:00 2:15 *Regenerating lost wings: Lessons from an insect model (2.1)*

Ahmed Orabi

2:15 2:30 *Trends of Egyptian Journalistic Discourse about Political freedom practicing during Mubarak Era (2.2)*

Sudipta Dutta

2:30 2:45 *Binding to Immobilized Oviduct Glycans Prolongs the Lifespan of Bovine Sperm (2.3)*

Matthew Lira

2:45 3:00 *Students learning to coordinate mathematical and physical models in science education (2.4)*

3:00 3:15 **Vincent Reverdy**

From cosmology to bit hacks: a story of abstraction (2.5)

Beckman Foyer and Room 1005

3:15 3:30 Break (coffee, water, tea)

Auditorium: Session 3: Chair, Ilaria Berteletti

Fei He

3:30 3:45 *Study the developmental plasticity through public gene expression data (3.1)*

Silvia Soto

3:45 4:00 *Rebuilding a Mayan World: Awakening, Presence, and Possibilities (3.2)*

Muhammad Rabanwaz

4:00 4:15 *An Antismudge Coating Free of Flourine (3.3)*

Ozlem Ece Demir-Lira

4:15 4:30 *Early parental decontextualized language input predicts neural basis of narrative processing at child age 7-9 (3.4)*

Auditorium: Session 4: Chair, Roberto Andresen Eguiluz

Hui Fang

4:40 4:55 *Chronically Stable, Flexible Bio-Electronics for Brain and Heart Activity Mapping (4.1)*

Gianluigi Rossi

4:55 5:10 *The importance of being clean: biosecurity measures in farm operations (4.2)*

Yue Zhuo

5:10 5:25 *Quantitative Measurement of Cell Adhesion with PCEM (4.3)*

Adam Brandt

5:25 5:40 *Prion protein gene sequence and chronic wasting disease susceptibility in white-tailed deer (*Odocoileus virginianus*) (4.4)*

Auditorium: Closing Remarks

5:40 5:45 Closing Remarks from SOPS, Brian Mosby

Beckman Atrium

5:45 7:00 Reception (Audience Choice Talk, Audience Choice Poster)

7:00 Removal of Posters

Organizers: Bradly Alicea, Roberto Andresen Eguiluz, Ilaria Berteletti, Jia Dong, Brian Mosby, Brian San Francisco, Maryam Shakiba, Qian Wu

Sponsors: Graduate College, Postdoctoral Affairs Office, and Office of the Provost

Special Thanks: Institute for Genomic Biology (IGB) Postdoctoral Association

TALKS

Talk abstracts are available in the extended program at
<http://sops.beckman.illinois.edu>

- 1.1 **Meng Jiang**, mjiang89@illinois.edu
Modeling Complex Behavior in Social Media
- 1.2 **Katrina Cummings**,
ksangute@illinois.edu *Understanding Parental Engagement within Families of Children with Disabilities in Rural Communities*
- 1.3 **Enrique Valera**,
evalerac@illinois.edu
Multiplexed detection of clinically-relevant biomarker panels using a silicon photonic biosensing platform
- 1.4 **Hillary Schwarb**,
schwarb2@illinois.edu
Hippocampal viscoelasticity and relational memory performance
- 1.5 **Marian Breuer**, mbreuer@illinois.edu
Towards a whole-cell computational model of a minimal cell
- 2.1 **Sumbul Khan**, sumbuljk@illinois.edu
Regenerating lost wings: Lessons from an insect model
- 2.2 **Ahmed Orabi**, orabi@illinois.edu
Trends of Egyptian Journalistic Discourse about Political freedom practicing during Mubarak Era
- 2.3 **Sudipta Dutta**, sdutta@illinois.edu
Binding to Immobilized Oviduct Glycans Prolongs the Lifespan of Bovine Sperm
- 2.4 **Matthew Lira**, melira42@illinois.edu
Students learning to coordinate mathematical and physical models in science education
- 2.5 **Vincent Reverdy**,
vince.rev@gmail.com
From cosmology to bit hacks: a story of abstraction
- 3.1 **Fei He**, feihe@illinois.edu
Study the developmental plasticity through public gene expression data
- 3.2 **Silvia Soto**, sisoto@illinois.edu
Rebuilding a Mayan World: Awakening, Presence, and Possibilities
- 3.3 **Muhammad Rabanwaz**,
rabanwaz@illinois.edu
An Antismudge Coating Free of Flourine
- 3.4 **Ozlem Ece Demir-Lira**,
ece@uchicago.edu
Early parental decontextualized language input predicts neural basis of narrative processing at child age 7-9
- 4.1 **Hui Fang**, fangh05@gmail.com
Chronically Stable, Flexible Bio-Electronics for Brain and Heart Activity Mapping
- 4.2 **Gianluigi Rossi**, grossi@illinois.edu
The importance of being clean: biosecurity measures in farm operations
- 4.3 **Yue Zhuo**, yuezhuo2@illinois.edu
Quantitative Measurement of Cell Adhesion with PCEM
- 4.4 **Adam Brandt**, abrandt2@illinois.edu
*Prion protein gene sequence and chronic wasting disease susceptibility in white-tailed deer (*Odocoileus virginianus*)*

POSTERS

Poster abstracts are available in the extended program at
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- 5.1 **Karie Brown-Tess**, brown.karie@gmail.com *How is student power connected to pedagogy in the math classroom?*
- 5.2 **Xuan Zhou**, xuanzhou@illinois.edu *Aluminum-based plasmonic enhancements for solar water splitting*
- 5.3 **Aaron Schwartz-Duval**, asschwa2@illinois.edu *Polyvillic nanostructures for biomedical applications: a snowflake inspired design*
- 5.4 **Josh Gibson**, jcgibso2@illinois.edu *Comparative functional morphology and kinematics of miniature trap-jaw ant (*Strumigenys* spp.) mandible strikes*
- 5.5 **Paulina Ng**, gwnpng@gmail.com *Mobile Manipulation: Ghost crab climbing using pincer-like claws*
- 5.6 **Ju Seong (John) Lee**, jlee682@illinois.edu *Learning beyond the classroom: Language learning strategy between Monolingual Korean and Multilingual Moroccan Students*
- 5.7 **Lydia Kisley**, lkisley11@gmail.com *Protein adsorption, desorption, and structure at interfaces*
- 5.8 **Kimberly See**, ksee@illinois.edu *Beyond Li-ion Batteries: A Multitechnique Approach to Understanding Speciation in Advanced Electrolyte Solutions for Mg Batteries*
- 5.9 **Bradly Alicea**, balicea@illinois.edu *The DevoWorm Project: raising the worm with data*
- 5.10 **Zheng Li**, zhengli5@illinois.edu *Sensitive Detection of Trimethylamine with a Colorimetric Sensor Array*
- 5.11 **Selim Jang**, sjang28@illinois.edu *How do the different components of mathematics relate to domain specific and general cognitive abilities?*
- 5.12 **Yajie Wang**, ywang345@illinois.edu *Exploring the Synergy between Chemical Catalysis and Biocatalysis: Tandem Reactions Combining Biocatalysts and Organometallic Complexes for Selective Synthesis*
- 5.13 **Agata Ploska**, szeffler@illinois.edu *Serial molecular imaging of the receptor for advanced glycation endproducts with multimodal nanoparticle-based targeted probe in preclinical models of hindlimb ischemia*
- 5.14 **Sung Jun Lim**, melsj@illinois.edu *Lipoprotein Nanoplatelets as Biocompatible 2D Fluorescent Probes with Rapid Cellular Uptake*
- 5.15 **Santosh Misra**, skmisra@illinois.edu *A Nitro-furan Antibiotic Turns Oncolytic to Selectively Reduce Breast Cancer Stem Cell via STAT-3 Modulation*
- 5.16 **Sandip Chorghade**, sandipgc@illinois.edu *Poly(A) binding protein C1 is developmentally regulated and controls a post-transcriptional pathway for cardiac hypertrophy*

- 5.17 **Chaitali Misra**, chaitali@illinois.edu
Overexpression of a fetal Rbfox2 splice isoform drives cardiac dysfunctions in Myotonic Dystrophy type 1
- 5.18 **Mohammad Ali**, mali85@illinois.edu
Autonomic ionic transport through chemical potential gradient for the detection of G-series nerve agents
- 5.19 **Alexander Brown**, abro4576@gmail.com
Multiplexed, Targeted Genome Engineering using Nuclease-Assisted Vector Integration (NAVI)
- 5.20 **Andreas Kourouklis**, akourouk@illinois.edu
Matrix composition and biophysical characteristics coordinately influence liver progenitor differentiation
- 5.21 **Zhaleh Ghaemi**, ghaemi@illinois.edu
Kinetic and Thermodynamic Effects of the Electrostatic Interactions of the U1A Protein-RNA complexes
- 5.22 **Fatemeh Ostadhossein**, ostadho2@illinois.edu
Next Generation Host-guest Chemistry on NanoCarbon Enhanced Inhibition of Breast Cancer In vitro and In vivo
- 5.23 **Ming-Hsu Chen**, chen289@illinois.edu
An integrated biorefinery: functional oligosaccharides production and high ethanol fermentation
- 5.24 **Keilin Jahnke**, deahl1@illinois.edu
Stored Solar Cookstoves Project
- 5.25 **Teresa Romano**, teresa.romano@polimi.it
The effects of policy uncertainty on technology diffusion: wind power in Italy.
- 5.26 **Jamila Hedhli**, hedhli2@illinois.edu
Molecular imaging of stem cell induced angiogenesis at the onset of microvascular complications in type-1 diabetes.

NOTES

Please leave this page in the collection box at the registration table prior to the reception

VOTE FOR THE BEST TALK

Please check the **three** talks you enjoyed most

○	1.1	Meng Jiang , mjiang89@illinois.edu <i>Modeling Complex Behavior in Social Media</i>
○	1.2	Katrina Cummings , ksangute@illinois.edu <i>Understanding Parental Engagement within Families of Children with Disabilities in Rural Communities</i>
○	1.3	Enrique Valera , evalerac@illinois.edu <i>Multiplexed detection of clinically-relevant biomarker panels using a silicon photonic biosensing platform</i>
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○	1.5	Marian Breuer , mbreuer@illinois.edu <i>Towards a whole-cell computational model of a minimal cell</i>
○	2.1	Sumbul Khan , sumbuljk@illinois.edu <i>Regenerating lost wings: Lessons from an insect model</i>
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SEE YOU NEXT YEAR!