

CELL DECISION MAKING WORKSHOP

June (9) 10-11 2013

Holiday Inn-Arlington

4610 N Fairfax Drive Arlington, VA

(703) 243-9800

Workshop Sponsors: **National Science Foundation and Rice University**

Meeting Coordinator: **Sara Bradley**, 703-963-1326 cell, sara.bradley@comcast.net

SCHEDULE: SUNDAY, JUNE 9, 2013

5:00pm-8:00pm

Evening Reception

Holiday Inn: Lounge

Wine & Hors d'oeuvres

SCHEDULE: MONDAY, JUNE 10, 2013

8:00-9:00am

BREAKFAST

Holiday Inn: Junior Ballroom

Breakfast pastries, fruit & Beverages

Meeting Space: Holiday Inn/Junior Ballroom

INTERNET ACCESS CODE: 8057

9:00-9:20 Welcome and Opening Remarks: NSF and Herb Levine, Rice University

9:20-9:50 Talk: *"Five Short Lessons from Bacteriophage Lambda"*
Ido Golding, Baylor College of Medicine

9:50-10:20 Talk: *"Optimization of Gene Expression Unlocks Latent Antibiotic Resistance"*
Adam Palmer, Harvard University

10:20-10:50 Talk: *"Mutation, Network, and the Regulation of Evolvability"*
Susan Rosenberg, Baylor College of Medicine

10:50-11:20 **Coffee Break**

11:20-11:50 Talk: *"Sex and Society meet Natural Selection"*
Rosemary Redfield, University of British Columbia

11:50-12:20 Talk: *"Mammalian Cell Fate Decisions on the Epigenetic Landscape: Rebellious Cells"*
Sui Huang, Institute of Systems Biology

12:20-12:50 Talk: *"Post-Initiation Regulatory Mechanisms for Bacillus Subtilis Differentiation Pathways"* **Wade Winkler, University of Maryland**

12:45-2:00

LUNCH

Holiday Inn: Junior Ballroom

2:00-2:30 Talk: *"Rethinking Bacterial Persistence"* **Herb Levine, Rice University**

2:30-3:00 Talk: *"Integrated Molecular and Cellular Approach to Bacterial Decision Making"*
José Onuchic, Rice University

3:30-4:00 Talk: *"Cellular Decision-Making in the Context of a Structured Community"*
Gurol Suel, UC San Diego

4:00-4:30 **Coffee Break**

4:30-6:00 Open Discussion: Session Chairs, **Gurol Suel, UC San Diego and David Sprinzak, Tel Aviv University**

6:45pm **GROUP DINNER** **Me Jana Restaurant (See below)**

Monday Night Dinner Location: **Me Jana Restaurant**, 2300 Wilson Blvd, Arlington, VA
(Note: restaurant is physically at the back of this address facing the corner of Clarendon Blvd and N. Adams) 703 465-4440. 2 Miles from the Holiday Inn (Orange Line METRO stop COURTHOUSE).

NOTES: Transportation will depart for Me Jana outside the Holiday Inn entrance at 6:30pm.
Cuisine is Middle Eastern served 'family style' (fish and vegetarian options included.)

SCHEDULE: TUESDAY, JUNE 11, 2013

8:00-9:00am **BREAKFAST** **Holiday Inn: Junior Ballroom**
Breakfast pastries, fruit & Beverages

9:00-9:30 Talk: "*The Biophysics of Notch Signaling*" **David Sprinzak, Tel Aviv University**

9:30-10:00 Talk: "*The Threshold Level of the Sensor Histidine Kinase Governs Entry into Sporulation in Bacillus subtilis*" **Masaya Fujita, University of Houston**

10:00-10:30 Talk: "*Design Principles of Bacillus subtilis Sporulation Decision Network*"
Oleg Igoshin, Rice University

10:30-11:00 **Coffee Break**

11:00-11:30 Talk: "*Why So Many Feedbacks in Vibrio Harveyi Quorum Sensing*"
Ned Wingreen, Princeton University

11:30-12:00 Talk: "The Operating Principles of Decision Circuits from Bacteria to Cancer"
Eshel Ben-Jacob, Tel Aviv University/Rice University

12:00-1:00 **LUNCH** **Holiday Inn: Junior Ballroom**

1:00-1:30 Talk: "*Evolvability as a constraint on biological mechanisms – a computational perspective.*" **Leslie Valiant, Harvard University**

1:30-2:00 Talk: "*Bacterial Quorum Sensing*" **Bonnie Bassler, Princeton University**

2:00-3:30 Open Discussion: Session Chairs: **Eshel Ben-Jacob, Tel Aviv University/Rice University** and **Ned Wingreen, Princeton University**

3:30pm Closing Remarks and Wrap Up: **NSF and Herb Levine, Rice University**
