

## **Professional Development Days Schedule for SuRP 2013**

We welcome **all teachers** to attend the professional development series for National Jewish Health's Summer Research Program for High School Science Educators. Teachers may attend part of a session, an entire day or multiple days. Graduate-level re-licensure credit is available through the Colorado School of Mines (contact Dr. Lukin for more information concerning this aspect). If you would like to attend any of the sessions, please contact Dr. Lukin in advance so that appropriate materials and space can be arranged: Dr. Kara Lukin (303) 398-1329, lukink@njhealth.org.

All sessions are held in the 5<sup>th</sup> Floor Conference room of the Goodman Bldg. K522 unless indicated otherwise.

### **Friday, June 14<sup>th</sup> Denver Museum of Nature and Science lectures and pedagogy**

8:00am – 4:00pm Special Session

### **Monday June 17<sup>th</sup>**

- 9:00 – 11:00am – **WELCOME! Action Plans (execution/how did you spend your money) Peer Coaching - expectations, desires, concerns for SuRP (Kara Lukin)**
- 11:00 – 12:00pm – **The Immortal Life of Henrietta Lacks – RCR (Kara Lukin)**
- 12:00 – 1:00pm – **Lunch (All mentors and lab members welcome)**
- 1:00 – 3:00pm – **Meet with your labs**
- 3:00 – 3:30pm – **Transit time**
- 3:30 – 4:00pm – **Tea Time – meet part of the immunology crowd (Goodman 5<sup>th</sup> Fl. Lobby)**
- 4:00 – 5:00pm – **NIH's Office of Research Integrity "The Lab"**  
(<http://ori.hhs.gov/TheLab/>) & post a comment on ORI's related blog.

### **Tuesday June 18<sup>th</sup>**

- 9:00 – 10:00am – **What topic(s) do you need laboratory exercise(s) to help illustrate the content for your students? What labs are your favorites? (Kara Lukin)**
- 10:00 – 11:00am – **Lab skills review (Kara Lukin, K516/504)**
- 11:00 – 12:00pm – **Let's try out the probeware from Vernier – heart monitor (Kara Lukin)**
- 12:00 – 1:00pm – **Lunch in the NJH cafeteria**
- 1:30 – 2:30pm – **Finish NIH's Office of Research Integrity "The Lab"**  
(<http://ori.hhs.gov/TheLab/>) and post a comment on ORI's related blog.
- 2:30 – 3:30pm – **Safety training (Bernard Wolf, Eric Johnson)**
- 3:45 – 5:00pm – **The sanctity of Lab notebooks & writing good protocols (Kara Lukin)**

### **Wednesday June 19<sup>th</sup>**

- 8:30 – 9:30am – **Responsible Conduct in Research (Terry Potter) \*\*Notice we start early**
- 9:45 – 10:45am – **What supplies are available in the "lending library" and how you can use them in the classroom... (Kara Lukin)**
- 11:00 – 12:00pm – **How to give a lab meeting presentation/Talk at PIS (Kara Lukin)**

## Professional Development Days Schedule for SuRP 2013

12:00 – 1:00pm – Lunch in the NJH cafeteria

1:00 – 4:30pm – Get into your labs

### Thursday, June 20<sup>th</sup>

Lab Day

### Friday, June 21<sup>st</sup>

8:30 – 10:30am – **Intro to Immunology** with hands-on activities (Kara Lukin)

10:30 – 11:00am – **How are we doing? What did you notice as a learner this week? How will that help you with investigations for your students?** (Kara Lukin)

11:00 – 12:00pm – **Some very basic statistics and data analysis** (Doug Everret)

12:00 – 1:00pm – Lunch in Goodman K522 with discussion

1:00 – 2:00pm – **Using scientific journals in the classroom** (Kara Lukin)

2:00 – 4:30pm – **Teaching with Case Studies** (Kara Lukin)

### Friday, June 28<sup>th</sup>

Today's schedule is unusual. We need to weave the GMO lab components throughout the day.

**\*\* Note the late start time – 9am**

9:00 – 10:30am – **B cells and the clonal selection theory** (Katja Aviszus)

10:40 – 12:00pm – **Creating inquiry-based lessons by adapting Bio-Rad lab kits – hands-on ELISA and GMO (genetically modified organism) detection** (Cindy Gay)  
GMO DNA extraction, PCR set up and discussion

12:00 – 1:00pm – Lunch in Goodman K522 with discussion

1:00 – 3:00pm – **Hands-on ELISA & classroom application discussion** (Cindy Gay)

3:00 – 3:45pm – **Preparing ELISA/GMO lesson plans Q & A and presentations for Partners in Science** (Kara Lukin/Cindy Gay)

3:45 – 5:00pm – **Complete GMO experiment – gels, analysis and discussion** (Cindy Gay)

### Friday, July 12<sup>th</sup>

8:30 – 10:30am – **MHC molecules and types of T cells** (Kara Lukin)

10:30 – 11:00pm – **Responsible Conduct in Research Case Study** (Kara Lukin)

11:00 – 12:00pm – **Teaching science in a multicultural setting** (Bryan Wee)

12:00 – 1:00pm – Lunch with continued discussion with Bryan Wee

1:00 – 2:00pm – **How are we doing? What did you notice as a learner this week? How will that help you with labs for your students?** (Kara Lukin)

2:00 – 3:30pm – **Action Plans** – Summarize **your research** topics, Relevance to everyday life? Ideas for transferring experiences to the classroom? Peer Coaching (K. Lukin)

## **Professional Development Days Schedule for SuRP 2013**

3:30 – 4:30pm – **A peek into Clinical Labs – the jobs and education tracks** (Vijaya Knight)

### **Friday, July 19<sup>th</sup>**

8:30 – 10:30am – **Immunologic memory and Vaccines, teaching with art** (Kara Lukin)

10:45 – 12:00pm – **Responsible Conduct in Research Case Study** (Kara Lukin)

12:00 – 1:00pm – Lunch with discussion

1:00 – 2:00pm – **Writing abstracts (for Partners in Science)** (Kara Lukin)

2:00 – 2:30pm – **Phagehunting workshop report** (Jessica Taylor)

2:30 – 4:30pm – **Action Plans/Summer Research Presentations: Discussions & protected development time** (Kara Lukin)

### **Friday, July 26<sup>th</sup>**

8:30 – 9:30am – **Finish Abstracts for PIS** (Kara Lukin)

9:30 – 10:00am – **Responsible Conduct in Research** (Pippa Marrack)

10:00 – 11:00pm – **How are we doing? What did you notice as a learner this week? How will that help you with labs for your students? Peer Coaching** (K. Lukin)

11:00 – 12:00pm – **Our research & Our Action Plans – Discussion, Peer Coaching** (K. Lukin)

12:00 – 1:00pm – Lunch with discussion

1:00 – 2:00pm – **Multiple Sclerosis and autoimmune diseases** (TBA)

2:00 – 4:30pm – **Poster/Talk preparation and Action Plans** (K. Lukin, ask if laptop needed)

### **Friday, Aug. 2<sup>nd</sup>**

8:30 – 10:30am – **Teaching HIV biology with active learning and case studies** (Kara Lukin)

11:00 – 12:00pm – **Hematopoietic cancers and teaching evolution** (James DiGregori)

12:00 – 1:00pm – Lunch with discussion

1:00 – 2:00pm – **Asthma, Environments & Genome-wide association studies** (M. Schedel)

2:00 – 4:30pm – **Exploring the Biosciences Industry, associated careers & skills** (TBA)

**Aug. 7<sup>th</sup> and 8<sup>th</sup> - COLTT CONFERENCE – Colorado Learning and Teaching with Technology**

### **Friday, Aug. 9<sup>th</sup>**

8:30 – 10:30am – **Final presentation of Action Plans and experiments** (Kara Lukin)

11:00 – 12:00pm – **Program completion On-line survey** (Library)

12:00 – 1:00pm – **Lunch**

1:00 – 3:00pm – Summer Research Presentations:

**Talk for Partners in Science (PIS)** (Jessica/Tami)

**Poster presentations for PIS** (Adrienne)

3:00 – 4:30pm – **Participant feedback and Wrap up for the summer** (Kara Lukin)