

The *Daphnia* Genomics Consortium Meeting 2007

When: July 7 through July 9, 2007

Where: Indiana Memorial Union, Indiana University, Bloomington, Indiana, USA

Saturday, July 7

Steering Committee: Business meeting 1:00 p.m. - 3:00 p.m. Saturday, July 7. Location Indiana Memorial Union (TBD)

2:00 p.m. through 5:00 p.m.

(Conference Lounge) Registration

4:00 p.m. - 4:15 p.m.

(Oak Room) Opening Remarks – Peter Cherbas (CGB)

4:15 p.m - 4:50 p.m.

(Oak Room) Keynote – Igor Grigoriev (Joint Genome Institute)

***Daphnia pulex* Genome Sequencing, Assembly and Annotation**

The public release of the *Daphnia* genome

4:50 p.m. - 5:25 p.m.

(Oak Room) Keynote – Donald Gilbert (CGB)

***Daphnia* Genome Annotation and Analysis Notes**

5:25 p.m. - 6:00 p.m.

(Oak Room) Keynote – Hugh Robertson (Univ. Illinois)

Enigmatic Expansion of Three Opsin Lineages

6:00 p.m. - 7:30 p.m.

(State Room East) **The Genome Release Party**

Sunday, July 8

9:00 a.m. through noon

(Frangipani) Registration Continued

8:30 a.m. - 9:00 a.m.

(Frangipani) Continental Breakfast

9:00 a.m. - 9:25 a.m.

(Frangipani) Welcome – John Colbourne (CGB)

The *Daphnia* genome annotation project and the plans for this meeting

9:25 a.m. - 10:00 a.m.

(Frangipani) Keynote – Francis Poulin (Univ. of California Berkeley)

Evolution of Developmental Pathways in Crustaceans and Insects

10:00 a.m. - 10:30 a.m.

(Frangipani) Refreshments

10:30 a.m. - 11:45 a.m.

(Frangipani) Contributed Talks – **Section 1: Genome content and structure**

(Chairs) Michael Lynch & Igor Grigoriev

- 10:30 a.m. - 10:50 a.m. Sarah Schaack (Indiana Univ.)
Patterns of Transposable Element Gain and Loss in Sexual and Asexual *Daphnia pulex*
- 10:50 a.m. - 11:10 a.m. Mike Lynch (Indiana Univ.)
Introns in *Daphnia*
- 11:10 a.m. - 11:30 a.m. Kelley Thomas (Univ. of New Hampshire)
Genome Wide Analysis of Polymorphism in "The Chosen One"
- 11:30 a.m. - 11:45 a.m. Discussion and summary of this section

11:45 a.m. - 2:00 p.m.

(Coronation Room) Brunch

2:00 p.m. - 3:15 p.m.

(Frangipani) Contributed Talks – **Section 4: Ecological genomics**

(Chairs) Michael Pfrender & Jeff Boore

- 2:00 p.m. - 2:20 p.m. Qunfeng Dong (CGB)
Large-Scale Analysis of the *Daphnia* Transcriptome Under Stress, Based on Expressed Sequence Tags
- 2:20 p.m. - 2:40 p.m. Ralph Pirow (Univ. Muenster)
Acclimatory Responses of the *Daphnia pulex* Proteome to Environmental Changes in Oxygen Concentration and Temperature
- 2:40 p.m. - 3:00 p.m. Toru Miura (Hokkaido Univ.)
Molecular Basis Underlying *Daphnia* Polyphenism
- 3:00 p.m. - 3:15 p.m. Discussion and summary of this section

3:15 p.m. - 3:30 p.m.

(Frangipani) Refreshments

3:30 p.m. - 4:45 p.m.

(Frangipani) Contributed Talks – **Section 3: Predicting gene functions from a comparative phylogenetic perspective**

(Chair) Teresa Crease

- 3:30 p.m. - 3:50 p.m. Jade Buchanan-Carter (CGB)
Sequence Preservation of Human Disease Genes in Crustacea
- 3:50 p.m. - 4:10 p.m. Gary Stuart (Indiana State Univ.)
***Daphnia* Genes Encoding Multiple Tandem Zn-finger Proteins**
- 4:10 p.m. - 4:30 p.m. Jonathan Stillman (San Francisco State Univ.)
Annotating the Heat Shock Genes of *Daphnia pulex*
- 4:30 p.m. - 4:45 p.m. Discussion and summary of this section

5:00 p.m. - 7:30 p.m.

(Frangipani) Poster Set-Up

8:00 p.m. - 8:25 p.m.

(Frangipani) Presentation by collaborative sponsor

Gary B. Smejkal (Pressure BioSciences)

Advances in Sample Preparation in the Genomics and Proteomics Era: Applications of a Pressure Cycling Technology

8:30 p.m. - 10:00 p.m.

(Frangipani) Poster Session and Dessert Buffet

(TBD) JGI Genome Portal **Help!** Desk

Monday, July 9

8:30 a.m. - 9:00 a.m.

(Frangipani) Continental Breakfast

9:00 a.m. - 10:15 a.m.

(Frangipani) Contributed Talks – **Section 2: Gene diversity and function in biological processes**
(Chair) Kelley Thomas

- 9:00 a.m. - 9:20 a.m. Andrew Schurko (Univ. of Iowa)
Phylogenomic Inventory of Meiotic Genes in *Daphnia*
- 9:20 a.m. - 9:40 a.m. Carolina Penalva-Arana (Univ. of Wisconsin)
Chemoreception in *Daphnia*: from Ecological Observations to Genes
- 9:40 a.m. - 10:00 a.m. Susanne Thomson (North Carolina State Univ.)
Nuclear Receptor Superfamily Genes of *Daphnia pulex*
- 10:00 a.m. - 10:15 a.m. Discussion and summary of this section

10:15 a.m. - 10:30 a.m.

(Frangipani) Refreshments

10:30 a.m. - 11:45 a.m.

(Frangipani) Contributed Talks – **Section 5: Toxicological genomics**
(Chair) Joseph Shaw

- 10:30 a.m. - 10:50 a.m. Helen Poynton (Univ. of California Berkeley)
Mining for Genomic Biomarkers of Metal Exposure in *Daphnia magna*
- 10:50 a.m. - 11:10 a.m. Speaker TBD
Title TBD
- 11:10 a.m. - 11:30 a.m. Joseph Shaw (Dartmouth College)
Towards a Genomic Understanding of Acclimation and Adaptation to Environmental Toxicants
- 11:30 a.m. - 11:45 a.m. Discussion and summary of this section

11:45 a.m. - 2:00 p.m.

Lunch, on your own
(TBD) JGI Genome Portal **Help!** Desk

2:00 p.m. - 3:20 p.m.

(Frangipani) [Manual annotation meetings for each Section](#)

The section leaders hold meetings with the investigators contributing to the *Daphnia* genome annotation project.

3:20 p.m. - 3:30 p.m.

(Frangipani) Refreshments

3:30 p.m. - 4:00 p.m.

(Frangipani) Panel Discussion

The *Daphnia magna* genome sequencing project (next genome project begins 2007)

4:00 p.m. - 4:30 p.m.

(Frangipani) Closing Remarks – Michael Pfrender (Utah State Univ.)

5:30 p.m. - ??

(Location TBD) Dinner meeting of the Steering Committee