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SMBE Satellite Meeting On De Novo Gene Birth

Texas A&M university, November 6-9, 2023

Final Report

1. Organizers

- **Claudio Casola**, male, Associate Professor, Department of Ecology and Conservation Biology, Texas A&M University, ccasola@tamu.edu
- **Li Zhao**, female, Assistant Professor, Laboratory of Evolutionary Genetics and Genomics, Rockefeller University, lzhao@mail.rockefeller.edu
- **Victor Luria**, male, Research Scientist, Department of Neuroscience, Yale University; Department of Systems Biology, Harvard Medical School, victor.luria@yale.edu
- **Nikolaos Vakirlis**, male, Junior Researcher, Institute for Fundamental Biomedical Research, BSRC "Alexander Fleming", vakirlis@fleming.gr

2. Post-Meeting Summary

Meeting structure

The meeting was organized around a three and half days program provided with this summary on November 6-9, 2023. The meeting included 2 plenary lecturers, 10 talks from invited speakers, 27 contributed talks, 26 contribute posters, a round table with invited speakers and a break-out session on de novo gene birth in nonmodel organisms (the latter is not included in the program as it was organized spontaneously by some participants).

The meeting was held in one venue, the Texas A&M Hotel and Conference Center, where most of the participants were also hosted.

Participation

The meeting was attended by 94 participants from 41 Institutions across 11 countries and three continents (North America, Europe and Asia). Participants included 68 trainees. Support was given as travel awards to 25 trainees, including 18 North American trainees supported by part of the NSF grant (\$10,000) and \$5,300 from the SMBE and other funding Institutions for international trainees.

Although our goal was to have at minimum an equal number of female and male speakers, the plenary and invited speakers included four female scientists. Eight female and four male colleagues who were invited to contribute talks could not join the meeting. To further increase the geographical breath of participants, we have invited multiple colleagues from China and offered significant support to one trainee from Brazil, who were also unable to join the meeting due to long USA visa waiting times in their countries.

Scientific contribution

The contributed talks and posters covered an array of topics related to de novo gene birth and gene evolution. The main fields covered during the meeting included molecular evolution, cellular biology, population genetics, microproteins and gene annotation, proteomics, systems biology.

Publications from the meeting

The organizers will be editors for a special session on de novo gene birth to be published on Genome Biology and Evolution. Multiple meeting' speakers have committed to submit a manuscript to GBE by May 15th. The organizers will write a perspective paper on de novo gene birth to be submitted to GBE for the same special session.

3. Financial Report

Funding support

Beside the fundamental contribution and sponsorship of SMBE, the organizers secured funding from the NSF (sole PI Casola) and from multiple Institutions within Texas A&M University: AgriLife Research, the College of Agriculture and Life Sciences, the School of Veterinary Medicine & Biomedical Sciences, the Department of Ecology and Conservation Biology, the Department of Biology, the interdisciplinary graduate program in Genetics and Genomics and the interdisciplinary graduate program in Ecology and Evolutionary Biology. Additional support was obtained from the City of College Station and from one vendor.

Registration fees were set at \$30 for trainees and \$100 for faculty until August 31st, when late registration fees were increased to \$50 and \$150, respectively. Registration were collected from 83 participants for a total of \$3,850.

Expenses

The meeting total cost was \$79,248.05. Most of the expenses derived from the venue rental, lunches and coffee breaks purchased from the Hotel (30%), speakers' travel (21%), and speakers' accommodations (14%). Lunches were included for each day of the conference.

The total of the expenses for the two plenary speakers was to \$4,995.05 (\$3,512.95 for Prof. Erich Bornberg-Bauer, University of Münster; \$1,482.10 for Dr. Anne-Ruxandra Carvunis, University of Pittsburg). The travel expenses were particularly high for Prof. Bornberg-Bauer because he had to change the return flight for unforeseeable circumstances. The break-down of expenses (including those for plenary speakers) and funding support is provided in the file "SMBE satellite de novo genes meeting - Expenses and funding.xlsx".