Community session EZPM 2016, Lisbon: Many other things and also funding opportunities
Thu 17th March 2016
Chair: Uwe Strähle
THANK YOU LISBON ORGANIZERS!
EZRC

Robert Geisler
Robert.Geisler@kit.edu
EZRC in overview

6,000 fish tanks
Funding by KIT, Klaus Tschira Foundation and EC (ZF-HEALTH project)

Embryos
> 600 orders shipped since November 2013

Database
genetic, imaging and expression data

Plasmids
Sequencing
mapping, transcriptional profiling

12,000 alleles / transgenic insertions kept as fish or as frozen sperm (incl. Tübingen + Sanger)

Genetic and chemical screens for guest researchers

Mar 15, 2016
Robert Geisler – Status of the European Zebrafish Resource Center
EZRC, Institute of Toxicology and Genetics
Distribution of Sanger knock-out lines

Order received

“frozen”

IVF with Sanger F1 sperm

Grow up F2
Test cross

“living”

Grow up F3
Freeze F3 sperm
Freeze fin clips for later ID

“frozen”

KASPar ID fin clips
IVF
Ship embryos

KASPar ID fish
Outcross
Ship embryos

Currently 12 months shipping time
EZRC News

• A new batch of Sanger mutants will be available soon

• Send us your wish list of mutant, transgenic, or wild type lines from ZIRC that you would like to see included in our future catalog!

• We plan to collect CRISPR-Cas9 reagents and to perform injection on demand, please let us know if you are interested
Training opportunities

• **International Zebrafish and Medaka Course (with EUFishBioMed)**
  
  One-week lecture and practical course  
  For technicians, students, graduates, postgraduates and Pis  
  Structured according to FELASA requirements  
  Held several times per year at KIT  

  Register at [http://izmc.ezrc.kit.edu](http://izmc.ezrc.kit.edu)

• **Training in sperm freezing and IVF methods**
  
  Two-day hands-on training  
  Offered by the EZRC on request
Some news from the EUFishBioMed Society

Uwe Strähle
Uwe.Straehle@kit.edu

... more tomorrow.
Please think about this:

EZRC is the result of EuFishBioMed

- EZRC reduces animal experiments
- EZRC reduces your efforts to write applications for animal experimentation.
- DFG for example allows special funds for depositing the animals in the stock centre
- Frozen lines in the EZRC save your money.
Regulatory issues

Assessment of burden

Article 3 of the EU Directive 2010/63/EU: Maintenance of a genetically modified animal line requires a project authorization when the alteration may cause a level of pain, suffering, distress or lasting harm to the animal.

German Centre for Risk Assessment (BfR): Datasheets for the assessment of burden in genetically altered animals on the basis of mice and rat physiology.

- Datasheets are not applicable to fish.
- Authorities usually have few experience with fish.
- There are no „normal“ data characterizing a fish that is not burdened
- Every fish lab invents its own assessment solution.
Workshop in Karlsruhe with representatives from many German institutions (Organizers Strähle, Driever, Köhler, Weiss)

→ Comparability of the assessment of burden
→ Transferability between different institutions (different languages)
→ Acceptance by the authorities
→ Assessment should not burden the animals.
→ Simple to use datasheets that can be used by laymen

Principle:

No additional animal shall be raised, killed or used in an experiment in the course of the assessment of burden.
Result

- datasheets applicable for all bony fish species (developmental stages not time points)
- no differentiation between sexes
- always to be compared to the own wildtype fish
- only inspective evaluation, no invasive methods

To be assessed:

- latest F3 generation of a line
- free feeding larvae (unclear genotype): at least two batches (about 20 animals in total in zebrafish)
- adult stages when fertile (not necessarily the same animals as the larvae): at least 7 individuals from one tank

Assessment not necessary (usually):

- inducible line when not burdened without induction (induction = project, needs authorization)
- heterozygous reporter lines
- dual expression lines
- Cre/Lox lines
**Result**

Final evaluation arising from the two datasheets

German and English Datasheets will be available soon on the webpage of www.bf3r.de

The results will be published (manuscript in preparation).
International Zebrafish and Medaka Course (IZMC)

The Directive 2010/63/EU of the European Parliament and of the Council of Europe demand that persons performing animal experimentation should be adequately trained.

So far 10 courses have been held at EZRC (since 2014)

COURSES in 2016:
7th - 10th March 2016 (fully booked)
18th - 21st April 2016 (fully booked)
20th - 23rd June 2016 (fully booked)
Planned: Courses in autumn (dates not set yet)
International Zebrafish and Medaka Course (IZMC)

4 days course (theoretical and practical parts):
- ETHICS and LAW (APPLICATION)
- BIOLOGY AND HUSBANDRY
- EXPERIMENTAL WORK (ANASTHESIA, ZF HANDLING)
- STATISTICS

FELASA accreditation currently ongoing

INTERESTED? GO TO: https://izmc.ezrc.kit.edu
FELASA/EUFishBioMed
husbandry of zebrafish

Peter Alestrøm
palestrom@me.com
Zebrafish: housing, husbandry, and health monitoring recommendations

Peter Aleström¹, Livia D’Angelo², Paul J. Midtlyng¹, Daniel F. Schorderet³, Stefan Schulte-Merker⁴, Frederic Sohm⁵, Susan Warner⁶

¹Norwegian University of Life Sciences, Faculty of Veterinary Medicine and Biosciences, Oslo, Norway (EUFISHBioMed)
²Dept of Veterinary Medicine and Animal Productions, University of Naples Federico II; Italian Association for Laboratory Animal Sciences, Naples, Italy (FELASA)
³Institute for Research in Ophthalmology, University of Lausanne and Ecole polytechnique fédérable of Lausanne, Sion, Switzerland (FELASA)
⁴WWU Münster, Faculty of Medicine, Münster, Germany (EUFISHBioMed)
⁵CNRS, UMS 3504, AMAGEN, Gif sur Yvette, France; INRA, UMS 1374, AMAGEN, Jouy en Josas, France (FELASA)
⁶Karolinska Institute, Comparative Medicine, Stockholm, Sweden (FELASA)

Terms of Reference (FELASA): To review available information and to issue guidelines on basic housing and husbandry practices for Zebrafish that promote the animals’ health and well-being. These guidelines should address the biology of the species, transportation, reception, safe introduction into facilities, housing systems, environmental (water) conditions, sanitation of equipment, feeding, breeding, identification, nomenclature, background pathology, anaesthesia /analgesia and euthanasia. http://www.felasa.eu/working-groups/working-groups-present/zebrafish-housing-husbandry-and-health-monitoring-recommendations/
DIRECTIVES

DIRECTIVE 2010/63/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 22 September 2010
on the protection of animals used for scientific purposes
(Text with EEA relevance)

CHAPTER 1
GENERAL PROVISIONS
Article 1
Subject matter and scope
1. This Directive establishes measures for the protection of animals used for scientific or educational purposes.

To that end, it lays down rules on the following:

(a) the replacement and reduction of the use of animals in procedures and the refinement of the breeding, accommodation, care and use of animals in procedures;

(b) the origin, breeding, marking, care and accommodation and killing of animals;

(c) the operations of breeders, suppliers and users;

(d) the evaluation and authorisation of projects involving the use of animals in procedures.

ANNEX III REQUIREMENTS FOR ESTABLISHMENTS AND FOR THE CARE AND ACCOMMODATION OF ANIMALS

Section B: Species-specific section

11. Fish
11.1. Water supply and quality
11.2. Oxygen, nitrogen compounds, pH, and salinity
11.3. Temperature, lighting, noise
11.4. Stocking density and environmental complexity
11.5. Feeding and handling
European Zebrafish Meeting 2015

Husbandry Session Report

Monday, June 29 Oslo, Norway

Chairs: Stefan Schulte-Merker and Frederic Sohm

By

Zoltan Varga¹, Carole Wilson², and Peter Alestrom³

¹ Zebrafish International Resource Center, University of Oregon, USA
² Division of Biosciences, University College London, UK
³ Norwegian University of Life Sciences, Oslo, NO

ZEBRAFISH, in press
Funding opportunities

• EU Support ZF Health finished!!

• Zebrafish Research Infrastructure
  → Support letters, white papers

• EU very ERC oriented, very translational,
  (ZF disease models)

National Funds
  → Reviewers be supportive!!!
DINNER WORKSHOP: funding issues

DATE during dinner  Thu 17th March

→ Participants list at EuFishBioMed stand, feel free to join
Antibodies, reagents
(Questions of Breandán Kennedy)

Antibodies:
This can be a limitation of model, not having Ab tools to validate expression changes/ location. I know a few companies started to sell extensive lists of zfish antibodies but we had little success with the few we tested. Just wondering what the community experience has been on this matter.

- Same problems for 20 years now
- Corinne Houart would like to lead a working group (collect ABs that work) Corinne.Houart@kcl.ac.uk
EuFishBioMed e.V.

Become EuFishBioMed member!

Annual fees

Full member: 65 € (3 years 180€)
Full member standing order: 60 €
PhD student, 3 years: 90 €

Donations are welcome.

..via bank transfer or standing order
...via paypal

go to:
www.EuFishBioMed.kit.edu
EuFishBioMed society assembly

Fr 18th March 1:45 PM

AGENDA

1. Protocol of the last assembly 2015, Oslo
2. Annual report
3. Finance report
4. Planned expenditures 2016 (vote)
5. Rotation of the board/executive secretary (Vote)
6. Bylaws’ change regarding board rotation (Vote)
7. New board/executive secretary (election)
8. International society (Vote)
9. Website: Zebrafish for laypeople (discussion)
10. Misc
Next European ZF meeting
2017 Budapest

Mate Varga
dolphinm@gmail.com
Scientific advisers: 
Rachel Giles 
Antonio Giraldez 
Mary Mullins 
Francesca Peri 
Didier Stainier 
Stephen Wilson 
Jochen Wittbrodt 

Confirmed Keynote Speakers: 
Monte Westerfield (In memoriam George Streisinger) 
Hugo Bellen (Drosophila vs. fish genetic tools) 

Organizers: 
Ferenc Mueller (Univ. Birmingham) 
Máté Varga (Eötvös Loránd University) 
László Orbán (Temasek Laboratories) 
Miklós Erdélyi (HAS-BRC) 
Kálmán Tory (Semmelweis University)
Program:
  03.07 morning: workshops
  03.07 noon – 06.07 afternoon: scientific program (thematic days ?)
  06.07 evening: banquet
  07.07 morning: sightseeing

Expected prices (with VAT), for society members:
  students: 390 €
  academy: 490 €
  industry: 590 €

We will offer on site child care in English and German (but it would be nice to know in advance, how many kids to expect).
Welcome to conference


Important dates

First important date title
15 March 2017

Second important date title
15 March 2017

Third important date title
15 March 2017

Fourth important date title
15 March 2017

Important date title
15 March 2015

365 days
Before the conference

Sponsors

Sponsor logo
Sponsor logo
Sponsor logo
Sponsor logo

EJM2017 | Organized by Diamond Congress Kft.
NEXT EZPM 2018

Marina Mione
Marina.Mione@kit.edu
2018 Trento (EZPM)

→ Before Easter
→ Less talks
→ Invite editors from journals /funding bodies
With the help of F. Argenton and N. Tiso, University of Padua

Centre for Integrative Biology

City of Trento, Italy

UNIVERSITY | DOCTORAL SCHOOL

CIBIO

3rd in Italy for Quality of Research

Muse
Structure of the PI meetings

How much strategy? How much science?

→ More strategy
International Zebrafish Society

Why is it needed?

• To support international meetings
• To promote cohesion and cooperation throughout the worldwide zebrafish community
• To provide strong advocacy for the zebrafish model and coordinate efforts to overcome regulatory and administrative barriers
• To educate the public on research using zebrafish
• To promote zebrafish investigators for awards/prizes and administer awards
• To liaison with other scientific societies
International Zebrafish Society

Interim Leadership

• Four **Interim Officers** were appointed to start things off:
  - President: Brant Weinstein
  - Vice President: Mary Mullins
  - Secretary: Stephan Neuhauss
  - Treasurer: Mary Halloran

• An **Interim Board** has been convened:
  - Europe: Michael Brand, Corinne Houart, Derek Stemple, Stephen Wilson
  - Asia/Pacific: Peter Currie, Koichi Kawakami
  - Central/South America, Caribbean, Africa: Miguel Allende
  - North America: Sharon Amacher, Marnie Halpern, Dave Raible, Lila Solnica-Krezel, Monte Westerfield, Len Zon
Three board meetings held, society bylaws adopted
IZFS incorporated as a full 501(c)(3) tax exempt organization
“Start-up” funds recovered from SZR and GSA
Website set up and open for new member registration

The IZFS is sponsoring the 2017 Strategic Conference of Zebrafish Investigators and the 2018 International Conference on Zebrafish Development and Genetics
The IZFS is sponsoring COMPETITIVE AWARDS for members
International Zebrafish Society
IZFS-Sponsored Conferences

2017 Strategic Conference of Zebrafish Investigators
January 14-18, 2017
Asilomar Conference Center
Pacific Grove, California

2018 International Conference on Zebrafish Development and Genetics
June 20-24, 2018
Madison, Wisconsin
International Zebrafish Society
IZFS-Sponsored Awards

• The IZFS will provide competitive awards to members at the July 13-17, 2016 Orlando, Florida, International meeting and at subsequent IZFS-sponsored meetings, including:

  ➢ Chi-Bin Chien Award (for Grad Students, Postdocs, and Junior Investigators) **Deadline April 11, 2016 @** [www.genetics2016.org/awards-zebrafish](http://www.genetics2016.org/awards-zebrafish)
  ➢ George Streisinger Award (**Senior Career Award**)  
  ➢ IZFS Travel Awards (for postdocs and students to attend IZFS-sponsored meetings)  
  ➢ IZFS Poster Awards (to recognize outstanding poster presentations at IZFS-sponsored meetings)

• **Sign up to be a member at IZFS.ORG!**
International Zebrafish Society

What can you do?

Join!
At IZFS.ORG

Participate!
IZFS committees need your help!
Vote, run for office, make nominations for awards