

AGENDA 5 th Short Course in Toxicologic Pathology in Fish

Monday 11th July 2022

08:30 Registration & Coffee

09:00 Welcome:

Objectives and overview of the agenda

Lecturer and participant introductions

09:15 Lecture:

Where to apply histopathology in fish toxicology, and which organs to study? (Helmut Segner)

09:30 Lecture:

Technical aspects of histology: from the fish to the slide (Lisa Baumann)

09:45 Lecture:

Fixation and preparation methods (Thomas Braunbeck)

10:00 Lecture:

Why are histological sections so colourful? Principles of staining (Heike Schmidt-Posthaus, Helmut Segner)

10:15 Coffee break

10:30 Lecture and demonstration:

Normal anatomy and histology of fish, rainbow trout, zebrafish, medaka, fathead minnow, adult versus early life stages (lead Jeff Wolf, participation of all)

11:45 Lecture

Background lesions which can influence interpretation of results, with focus on zebrafish (Heike Schmidt-Posthaus)

12:30 LUNCH

13:30 Guided exercise:

Normal anatomy and histology of fish (rainbow trout, zebrafish, medaka, fathead minnow, adult versus early life stages (lead Jeff Wolf, participation of all)

15:00 Coffee break

15:15 Lecture

Applications in toxicity studies with embryonic and transgenic fish (Thomas Braunbeck, Lisa Baumann)

16:00 Guided exercise:

Comparison of normal and altered tissue structures (all)

17:15 Supervised self-study
Use of “tissue identification checklist”

18:30 END, social program (tbd)

Tuesday 12th July 2022

08:30 Lecture:
Semiquantitative grading of histopathological lesions (Heike Schmidt-Posthaus)

09:00 Lecture:
Quantitative pathology (Jeff Wolf)

09:30 Lecture:
Histopathology of endocrine disruptors, case studies of estrogen and thyroid disruptors (Lisa Baumann, Helmut Segner)

10:30 Coffee break

10:45 Guided exercise:
Fish gonad and thyroid histopathology (all)

12:30 LUNCH

13:30 Lecture:
Mis-diagnoses and missed diagnoses – the challenges in toxicologic pathology with fish (Jeff Wolf)

14:00 Lecture:
Case study: assessment of toxicological incidents in surface waters (David Groman)

14:45 Coffee break

15:00 Practical exercise: toxicological incidents (David Groman)

16:15 Supervised self-studies/slides of the participants

17:30 Overview of course, feedback and proposals for 2023

18:00 END