Zebrafish embryos and Larvae : a new generation of disease model and drug screens

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Curriculum Vitae

Shaukat Ali was born on 15th June 1981 in Narowal (Punjab), Pakistan. He obtained his early education from the Government High School Langah, Narowal in 1997, and the Government Science College, Lahore in 1999. He completed his Zoology bachelor (B.Sc. Hons.) in 2004, and his Zoology master (M.Sc.Hons.) in 2006, both from the Zoology department, The University of the Punjab, Lahore. His master's specialization was Environmental Microbiology and his research thesis was entitled *Techno-Economic Assessment of Zinc Bacitracin Production by Fermentation Technology*. It was carried out at the Pakistan Council of Scientific and Industrial Research (PCSIR) Laboratories, Lahore. During his masters research project, he was appointed as Honorary Research Associate on the project *Microbial Production of Antibiotic Zinc Bacitracin to Supplement the Poultry Feed.* After his masters degree, he started his Ph.D. in Parasitology at the Zoology department, The University of the Punjab, Lahore. In 2007, he was awarded a Ph.D. scholarship by the University of Azad Jammu and Kashmir. On 25th January, 2008, he began work as a Ph.D. student in the research group Integrative Zoology, Institute of Biology, Leiden University, under the supervision of Prof. dr. Michael Richardson. The results of this Ph.D. research are presented in this thesis.

Publications and Manuscripts

As first author

1. Ali S, Champagne DL, Spaink HP, Richardson MK (2011). Zebrafish embryos and larvae: A new generation of disease models and drug screens. *Birth Defects Res C Embryo Today* 93: 115-133.

2. Ali S, Champagne DL, A. Alia, Richardson MK (2011). Large-scale analysis of acute ethanol exposure in zebrafish development: a critical time window and resilience. *PLoS ONE* 6(5): e20037.

3. Ali S, Mil HGJv, Richardson MK (2011). Large-Scale Assessment of the Zebrafish Embryo as a Possible Predictive Model in Toxicity Testing. *PLoS ONE* 6(6): e21076.

4. Ali S, Champagne DL, Richardson MK (2011). Behavioral profiling of zebrafish embryos exposed to a range of compounds.(Manuscript accepted in *Behavioural Brain Research*).

5. Ali S, Aalders J, Richardson MK. Teratological effects of a panel of compounds on zebrafish development. (Manuscript submitted in *PLoS ONE*).

6. Ali S, Templaar S, van Denderen D, Richardson MK. Developmental Neurotoxicity of Deltamethrin on dopamine neurons and Pharmacological Interventions in Zebrafish embryos. (Manuscript in preparation for *Toxicological Sciences*).

7. Ali S, Ruijs A, A. Alia, Richardson MK. The Mechanistic understanding of effects acute ethanol exposure on development zebrafish embryos. (Manuscript in preparation for *BMC Biology*).

8. Ali S, A. Alia, Richardson MK .HR-MAS 1H-MRS metabolomics profiling of intact and alive zebrafish embryo development. (Manuscript in preparation for *Nature Methods*).

9. Ali S, A. Alia, Richardson MK .HR-MAS 1H-MRS metabolomics profiling of intact zebrafish embryo exposed to a range of compounds. (Manuscript in preparation).

As joint first author

10. Wielhouwer EM, Ali S, Al-Afandi A, Blom MT, Olde Riekerink MB, Poelma C, Westerweel J, Oonk J, Vrouwe EX, Buesink W, Vanmil HG, Chicken J, van 't OR, Richardson MK (2011). Zebrafish embryo development in a microfluidic flow-through system. *Lab Chip* 11: 1815-1824.

11. Akhtar T, Ali S, Verpoorte R, Richardson MK (2011). Teratology, toxicity and behavioral profile of cannabinoids in zebrafish embryos.(Manuscript under review in *European Neuropsychopharmacology*).

12. Mushtaq MY, Ali S, Van der Kooy F, Choi YH, Verpoorte R, Richardson MK ^{1}H-NMR metabolomics profiling of zebrafish embryo development.(Manuscript in preparation for *Metabolomics*).

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