

VAIDHEESWARAN GANAPATHY

Email: sudarsh12@hotmail.com

Flat 4, Finlay Court, Stoney Road, Coventry, United Kingdom – CV1 2NP

Mobile: +44 07436899781 / +91 9886583395

Career Profile

Driven by my fondness for nature and wildlife, I have been keen on pursuing a career in a field that would revolve around the environment and play a role in its conservation. We are living in a tumultuous era which is striving to achieve that fundamental balance between advancement and sustainability and we must strive towards this goal to ensure a better future for our planet. It is my belief that toxicology with its environmental applications will play a vital role in critically assessing the detrimental effects of hazardous chemicals on our ecosystem and its inhabitants and moreover help provide solutions which can allow the various industrial sectors to evolve while also preserving our natural resources for the future.

Educational Qualifications

Karolinska Institute, Stockholm, Sweden

August 2015-2017

Master of Science (MSc) in Toxicology

Master Thesis - Effects of endocrine disrupting compounds (EDC) on the differentiation and proliferation of mouse embryonic stem cells (mESC).

- Culturing and inducing differentiation in two mESC models, towards a neural fate
- Serial dilutions and formulating the dosage of EDC mixture
- DNA/RNA/Protein extraction and quantification
- qPCR to evaluate expression of genes involved in neurodevelopment

R.V. College of Engineering (Autonomous Institute under Visvesvaraya

August 2011-2015

Technological University), Bangalore, India

Bachelors of Engineering (BEng) Biotechnology

Harvard-MIT, Health, Science and technology, Cambridge, USA

January – July 2015

Bachelors Thesis – Targeting of Lipid-based Platinum drug nanoparticles onto pediatric cancer cell lines and evaluate its efficacy.

- Culturing K7M2 (Osteosarcoma) & B102-1 (Neuroblastoma) cell lines
- Synthesizing cholesterol-based nanoparticles incorporating Cisplatin drug
- Characterization of synthesized nanoparticle (e.g., Size, Zeta Potential, Kinetics)
- Compare extent of apoptosis in both treatments using MTS Assay and Western Blotting.

Applied Professional Experience

Balipara Foundation, India

July – August, 2022

Herpetofauna Survey in the Eastern Himalayas.

- Explore and survey deteriorated forest patches, secondary agro-forestry Sites and primary evergreen forests for reptiles and amphibians.
- Compare and report the differences in biodiversity

Madras Crocodile Bank Trust and Centre for Herpetology, India

August 2019–June 2020

Research Internship

- Behavioral Studies in Crocodylians
- Habitat Maintenance and water quality testing
- Bio-accumulation studies of pesticides and heavy metals in tail scutes
- Snakebite and Snakebite mitigation

Agumbe Rainforest Research Station, India

June – July, 2019

Volunteering for the King Cobra Ecology and Conservation Project.

- Radio-telemetry of tagged male King Cobras in the wild
- Daily behavioral observations and habitat mapping
- Community outreach with villages sharing home range with these snakes

Madras Crocodile Bank Trust and Centre for Herpetology, India

April – June 2019

Research Volunteer

- Studying nest defense behavior in both male and female Gharial

Swetox – Swedish Toxicology Sciences Research Center, Sweden

July – October 2017

Research assistant

- DNA pyrosequencing & Chromatin-immunoprecipitation
- *In vivo* toxicity testing in rats

Tata Consultancy Services, Advanced Technology Centre, India

Internship in Computational Biology

- Next Generation Sequencing - Identification of Rare Disease-Causing Variants.

Publications

- *Role of estrogen receptor beta in neural differentiation of mouse embryonic stem cells. (PNAS, volume 114 issue 48)*

Professional Traits

Laboratory Skills:- Cell culture techniques for bacterial, cancer cell lines and mouse embryonic stem cells, Western Blotting, Basics of Confocal Microscopy, Flow Cytometry, RT-PCR, Chromatin Immuno-Precipitation (ChIP) – qPCR, Trained in Animal Handling , Basics of Necropsy and Histopathology.

Field Skills:- Ecological Monitoring and sample collection, Population Density Estimation, Radio-telemetry .

Computer Skills:- Microsoft Office, QSAR, Quantum, Pymol, R, Lightroom

Hobbies

Extremely fond of wildlife and nature so in my free time you can find me exploring various habitats looking for reptiles and amphibians. Wildlife photography is also something I'm extremely passionate about and it is my way of sharing some of the lesser-known marvels of the animal kingdom while also using my platform to educate, promote awareness and the need for habitat conservation. I also enjoy trekking in the mountains, playing football and experimenting with various cuisines in the kitchen.