CURRICULUM VITAE

PRAKASH NIDADAVOLU

https://www.linkedin.com/in/prakash-nidadavolu/

Address: Srini Avenue Gate 3, HT Road, Pet Basheerabad, Hyderabad 500067

Mobile**:** +91 9492347444 Email: kashbiotech@gmail.com

Profile Summary

- Seeking a position that extensively utilizes my skills and allows me to imbibe new skills.
- More than 10 years' experience working with pre-clinical models of cancer, and neurodegeneration.
- Expert in characterizing the pharmacokinetics and pharmacodynamics of potential drug candidates.
- Confident, and communicative team player with highest level of commitment.

Technical Skills

- **Animal work:** Drug delivery routes– ***Osmotic minipumps, subcutaneous (SC), intraperitoneal (IP)*** and tail vein; Blood collection– tail vein, orbital sinus, and cardiac puncture; transcardial perfusion.
- **Tissue preparation and histology:** Dissection of mouse brain regions, and peripheral organs; cryostat sectioning; RNAScope; immunohistochemistry.
- **Biochemistry:** Extraction of total protein; sub-cellular fractionation; ***immunoblotting***, **WES (Protein Simple)**; ***immunoprecipitation (IP)***; ELISA; ***kinase activity assay***, ***ATP assay***, mitochondrial complex-I activity, ROS detection (H2DCFDA), estimation of cellular GSH; ***cell surface biotinylation, receptor internalization and trafficking***; sample extraction (lipids and neurotransmitters) for HPLC and Mass spec analysis.
- **Nucleic Acids:** Isolation of genomic DNA, and RNA (cells and tissue), cDNA synthesis and ***RT-PCR***; ***site-directed mutagenesis and cloning***; plasmid extraction and purification; ***polysome profiling and sample preparation for RNA-Seq*****.**
- **Cell Culture:** ***Transient and stable transfections*** **(**siRNA, shRNA and gene expression constructs**)**; preparation and culturing of mouse embryonic fibroblasts (*MEF's*).
- **Microscopy:** Fluorescence microscopy (axioplan, axiovert), *Confocal imaging*.
- **Behavior studies:** Morris Water Maze; Partner Recognition; Novel Object Recognition; Open field test; grip strength test; elevated plus maze test; pole test.
- **Scientific programs:** Stereological quantification of cell number and soma area– *Stereoinvestigator* (mbf Bioscience); axonal fiber density measurement – *Metamorph software* (Visitron biosystems); *GraphPad Prism*; behavior analysis: *Ethovision and Observer (Noldus)*; basic bioinformatics.

Professional Experience

- **Postdoctoral Fellow**, Institute of Molecular Psychiatry, University of Bonn, Germany.

Mar 2018 – Feb 2021

- Characterizing the changes in the endocannabinoid system during normal aging process.
- ***Testing the therapeutic efficacy of THC and THC/CBD (Sativex®) in improving age related cognitive decline in pre-clinical models (mice).***

- **Doctoral Candidate**, Centre for Molecular Neurobiology Hamburg (ZMNH), University of Hamburg

Dec 2013 – Mar 2017

- ***Characterization, production, and purification of Ret monoclonal antibody.***
- Characterizing the genetic cross-talk of parkin and GDNF receptor Ret in the survival of nigrostriatal dopaminergic neurons in mice.

- ***Exploring the role of parkin in mitigating the oncogenic phenotypes of MEN2B mice.***

- **Research Associate**, National Brain Research Centre (NBRC) & Centre for Neuroscience, Indian Institute of Science (IISc.).

Mar 2008 – Apr 2013

- ***Redox regulation of key protein-protein interactions*** in an MPTP model of PD.
- Identifying the ***role of critical cysteine residues in regulating the kinase activity of Akt1*** in cultured neurons.
- Molecular mechanisms underlying the neuroprotection afforded by estrogen in female mice administered with MPTP.

- **Project Student**, Central Tobacco Research Institute (CTRI)

Aug 2007 – Feb 2008

- Genotyping of transgenic tobacco lines carrying the *Bacillus thuringiensis* toxin genes.
- Expression analysis of cry1A(b) and cry1C proteins in various tobacco lines using ELISA.

Academic Qualification

- **Doctor of Philosophy** in Biology from Universität Hamburg, Hamburg, Germany (2013 – 2017)
  Thesis Title: Parkin cooperates with GDNF/Ret signaling during the development and maintenance of the dopaminergic system in mice.
  Supervisor: Prof. Dr. Markus Glatzel
  Project Guide: Dr. Edgar Kramer
  Date of Defense: 5th July 2017, comprehensive grade (1.3) "**magna cum laude**"

- **Master of Science** in Biotechnology from Periyar University, Tamil Nadu, INDIA (2005 – 2007)**.**
  Thesis Title: Studies on molecular diversity of somaclones of tobacco cultivar "KANCHAN".
  Supervisor: Dr. K. Sarala

- **Bachelor of Science** in Chemistry, Biochemistry and Biotechnology from Andhra University, Andhra Pradesh**,** INDIA (2002 – 2005)**.**

Publications

- **Nidadavolu P,** Bilkei-Gorzo A, Leidmaa E, Schürmann B, Berger M, Bindila L, Schmid M, Zimmer A, Bailey A "Age-related changes in the endocannabinoid system of mice – Is endocannabinoid signaling key to the aging process". (Manuscript under preparation) (Collaborators)

- **Nidadavolu P,** Durga Praveen Meka, Sai Sneha Priya Nemani, Barbara Finckh, Anil Annamaneedi, Edgar R. Kramer "Loss of parkin mitigates the oncogenic MEN2B phenotypes in the mouse dopaminergic system". (Manuscript under preparation) (Collaborators)

- **Nidadavolu P**, Bilkei-Gorzo A, Kraemer M, Schürmann B, Palmisano M, Beins E, Madea B, Zimmer A "Efficacy of Δ^9-tetrahydrocannabinol (THC) alone or in combination with a 1:1 ratio of cannabidiol (CBD) in reversing the spatial learning deficits in old mice" *(Aug 2021)*. *Front. Aging Neurosci. 13:718850. doi: 10.3389/fnagi.2021.718850.* (Collaborators)

- Kraemer M, Hess C, Maas A, Madea B, Bilkei-Gorzo A, **Nidadavolu P** "Follow up: Palmitic acid ester of Tetrahydrocannabinol (THC) and palmitic acid diester of 11-Hydroxy-THC – Unsuccessful search for additional THC metabolites". *Drug Metab Pers Ther. 2021 Mar 22;36(3):199-203. doi: 10.1515/dmpt-2020-0151.* (Collaborators)

- Meka DP, Müller-Rischart AK, **Nidadavolu P**, Mohammadi B, Motori E, Ponna SK, Aboutalebi H, Bassal M, Annamneedi A, Finckh B, Miesbauer M, Rotermund N, Lohr C, Tatzelt J, Winklhofer KF,

Kramer ER "Parkin cooperates with GDNF/Ret signaling to prevent dopaminergic neuron degeneration". *J Clin Invest. 2015 May; 125(5):1873-85.* (Collaborators)

- Ahmad F[1], **Nidadavolu P**[1], Durgadoss L and Ravindranath V. "Critical cysteines in Akt1 regulate its activity and proteasomal degradation: Implications in neurodegenerative diseases"**.** *Free Radical Biology and Medicine* 74 (2014) 118–128. (1–Shared First Author)
- Durgadoss L, **Nidadavolu P**, Valli RK, Saeed U, Mishra M, Seth P and Ravindranath V. "Redox modification of Akt in mouse midbrain mediated by the dopaminergic neurotoxin, MPTP leads to downregulation of pAkt". *FASEB J*. 2012 Apr;26(4):1473-83.
- Saeed U, Karunakaran S, Meka DP, Koumar RC, Ramakrishnan S, Joshi SD, **Nidadavolu P** and Ravindranath V, "Redox activated MAP Kinase death signaling cascade initiated by ASK1 is not activated in female mice following MPTP: Novel mechanism of neuroprotection". *Neurotoxicity Research* 2009 Aug; 16(2):116-26.

CERTIFICATIONS/PROFESSIONAL TRAINING

- FELASA B certified by the GV-SOLAS (Gesellschaft für Versuchtierkunde – Society of Laboratory Animal Science). Contents correspond with the FELASA (Federation of European Laboratory Animal Science Associations) recommendations on the education & training of persons working with laboratory animals **(Oct 2014)**.
- Graduate program in molecular biology, **ASMB** (Aufbaustudiengang Molekularbiologie) offered by the Centre for Molecular Neurobiology Hamburg (ZMNH) in collaboration with the Faculty of Medicine, University-Hospital Hamburg-Eppendorf (UKE) **(Oct 2014 – Sep 2016)**.
- Participated in a workshop organized by stem cell and vector facility in UKE, titled "Viral vector production and culturing of human induced pluripotent stem cells (hiPSC's)" **(20th – 23rd Apr 2015)**.

OTHER SKILLS

- **IT:** MS-Office; Adobe Photoshop, Illustrator and Lightroom.
- **Personal skills:** Efficient, adaptable, well organized, sociable, reliable, fast-learner, highly motivated, getting projects to completion.