Constantin Adrian Apetri, PhD

EDUCATION

Postdoctoral Associate, Howard Hughes Medical Institute, YALE University, CT, USA	2006-2009
Postdoctoral Associate, Case Western Reserve University, Cleveland, OH, USA	2004-2005
Ph.D., Protein Biochemistry, Case Western Reserve University, Cleveland, Ohio, USA	1999-2004
M.Sc., Organic Chemistry, Babes-Bolyai University, Cluj-Napoca, Romania	1991-1997

WORK

Scientific Director, Analytical Development Advanced Therapies- Johnson and Johnson 2024-

- Leading a multidisciplinary team focused on analytical development for advanced therapies
- Real time biophysics, process analytics and automation

Scientific Director, Biophysics and Process Analytics- Janssen Vaccines and Prevention 2020-2023

- Leading vaccine process development analytics and biophysics
- Automation and robotics PAT implementation
- Real Time analytics for vaccine development processes
- Early analytical development of protein, RNA and adeno vector-based vaccines

Scientific Director, Janssen Prevention Center, Leiden, NL 2015-2019

- Leading a multidisciplinary team focused on antibody discovery, affinity and functionality optimization, structural biology, biophysics, protein analytics and mass spectrometry, assay development, biomarker discovery, *ex vivo* and *in vivo* POC studies in the field of Alzheimer's and related neurodegenerative diseases.

- Leading and scientific coordination of the Alzheimer Discovery program in collaboration with multiple academic and industrial partners

Sr. Scientist, Head Antibody and Protein Analytics, Crucell Vaccine Institute, Leiden, NL 2009-2014

- Leading a team of scientists focused on extensive analytical and biophysical characterization of antibodies (IgG, single domains, multi domains, bi-functional) and other protein drug and vaccine candidates (gp140, mini-HA Influenza vaccine) and their transfer towards development; pre-formulation and stability.

- Full range of de-risking and protein developability studies for smooth transition towards NME declarations

TECHNICAL EXPERTISE

Biophysical techniques:

Spectroscopy (UV-VIS, Circular dichroism, Fourier Transformed Infra-Red, Raman), Multi-Angle and Dynamic Light scattering, Capillary Electrophoresis, Size Exclusion Chromatography, Asymmetric Flow Field Flow Fractionation, Differential Scanning Calorimetry, Isothermal Titration Calorimetry, Stopped flow and continuous flow techniques, Fluorescence (intrinsic, resonance energy transfer, anisotropy), Mass Spectrometry (Intact mass, peptide mapping, glycan analysis), epitope mapping and conformational dynamics by Hydrogen-Deuterium Exchange Mass Spectrometry, Atomic Force Microscopy.

Protein purification and analysis

Protein expression in mammalian (multiple formats) and bacterial cells, Affinity, Ion exchange, Hydrophobic interaction, Size exclusion, Normal phase and Reversed phase chromatography; SDS-page, IEF, western-blotting; protein labeling (fluorescent, radio) and cross-linking; purification of proteins from *ex-vivo* sources.

Assay development

In vitro protein aggregation assays, cellular protein aggregation assays, microglia uptake assays, immunoprecipitation assays for epitope discovery in *ex-vivo* samples, various functional assays for proof-of-concept studies

LANGUAGES

English (advanced academic proficiency), Romanian (native), Hungarian (advanced), Spanish (advanced) Dutch (intermediate)