



Harold C. Smith is the founder and CEO of OyaGen, Inc. He received a BS and MS from Purdue in Animal Sciences and Veterinary Pharmacology and Physiology. He received a BA and PhD from the State University of New York at Buffalo in Cell and Molecular Biology. His postdoctoral studies at Baylor College of Medicine were on RNA biology. He has been on the faculty of Biochemistry and Biophysics at the University of Rochester, School of Medicine and Dentistry since 1986 and through his ideation, innovative research and problem-solving skills has been a key opinion leader in the area of gene editing enzymes, cardiovascular disease, antiviral host defense factors and HIV/AIDS.

He has authored 147 peer-reviewed papers, holds several patents and has received several million dollars in federal and foundation research grants, including a Bill and Melinda Gates Foundation individual award. He is a serial entrepreneur who has raised several million dollars in equity investments and has led two licensing deals.

His extensive background in biomedical research and expertise in drug discovery methods has guided OyaGen's process of discovery in human health and disease.

In addition, he has 38 years of experience designing University courses designing problem based learning and writing PBL cases. He mentored and trained hundreds of undergraduates, as well as graduate students, postdoctoral fellows, medical students and medical residents.



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## Core Capabilities

- **Bacterial culture and microbiology**
- **CRISPR/RNA and DNA editing**
- **Drug discovery critical path design & implementation**
- **Enzymology**
- **Flow cytometry**
- **Florescence anisotropy**
- **FRET (in vitro or in live cells)**
- **Gene expression construction/expression validation**
- **Gene transduction/electroporation**
- **Gradient sedimentation analysis**
- **Grant proposal writing**
- **High throughput assay design and validation**
- **High throughput screening**
- **High content screening**
- **Immunofluorescent cell imaging**
- **Isothermal calorimetry**
- **In silico drug-target interaction modeling**
- **Kinetic analysis**
- **Macromolecular complex analysis**
- **Macromolecular structure modeling**
- **Macromolecular separation and purification**
- **Manuscript preparation**
- **Molecular cloning**
- **Native PAGE**
- **Nucleic acid isolation**
- **PAGE and western blotting**
- **PCR, multiplex PCR, qPCR and RT-PCR**
- **Protein-protein interactions**
- **Protein-nucleic acid interactions**
- **Protein and RNA expression**
- **Protein chimera construction**
- **Pseudotyped viral infectivity assays**
- **Restriction enzyme mapping**
- **Subcellular localization in situ and fractionation**
- **Surface plasmon resonance**
- **Thermal shift**
- **Tissue culture**
- **Ultracentrifugation**

## **Why do business with us?**

- *the company is known for integrity and technical work of the highest order*
- *outgoing staff and personable working interface*
- *experience over decades in working with CROs and clients from academia and industry backgrounds*
- *technical staff have a broad range of biomedical and industrial research experience in cell biology, molecular biology, and protein structure and function*
- *adaptive problem solvers and innovators*
- *capable of thinking creatively and ideating outside of the box*
- *reliable and rapid project design and implementation*
- *clear and comprehensive data analysis and final reporting*
- *reasonable pricing*

## **Who are our clients?**

*pharm industry*

*privately held biotech companies*

*commercial entities*

*academic researchers*

## **Company information**

- *20-year old company*
- *UEI: JDWRVEQGKPJ8*
- *CAGE: 5CUE2*
- *NAICS codes: 541690, 541380*