

Arturo Orlacchio, PhD

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PERSONAL STATEMENT

Results-driven scientist with deep experience in cancer biology, translational research, and drug discovery. Strong foundation in immunology and immunologic assays, with particular expertise in *in vivo* immunotherapy approaches. Extensive hands-on experience with cell line-derived xenograft (CDX), patient-derived xenograft (PDX), syngeneic, humanized, and genetically engineered mouse models, as well as *in vivo* drug administration and efficacy studies. Strong expertise in assay validation, technical documentation, quality systems, and cross-functional program support across R&D, Clinical, and Operations. Proven track record of authoring SOPs, validation plans, QC frameworks, and submission-ready technical documentation to support CLIA/CLEP-aligned laboratory-developed tests and clinical trial readiness. Thrives in collaborative, fast-paced environments and excels at building communication across teams. Particularly effective at bridging experimental and computational biology to enable NGS-based mechanism-of-action studies, genomics, and target discovery.

CORE COMPETENCIES

- Biomarker Discovery and Validation
- Translational Oncology and Drug Discovery
- Immunology and Immunologic Assays
- Gene Editing and Functional Genomics
- Preclinical *In Vivo* Models
- Next-Generation Sequencing (NGS)
- Assay Development, Validation, and Lifecycle Support
- CLIA/CLEP-Aligned Documentation
- Clinical Trial Data Analysis and Study Support
- Technical Writing and Document Review

WORK EXPERIENCE

Episteme Prognostics, Brooklyn, NY

01/2024-present

Principal Scientist (02/2025 - present)

Senior Scientist (01/2024 - 01/2025)

- Led cross-functional efforts to identify and validate novel prognostic biomarkers for pancreatic ductal adenocarcinoma (PDAC).
- Directed analytical validation activities for biomarker assays, applying rigorous scientific methodologies to ensure accuracy, reproducibility, and clinical readiness.
- Worked directly with the Laboratory Director to validate and support New York State CLEP submission of two laboratory-developed tests, including an immunohistochemistry assay and a chromatin accessibility-based assay.
- Designed and executed *in vitro* and *in vivo* cellular, biochemical, and pharmacologic studies to assess mechanism of action, efficacy, and potency of small molecules and biologics in pancreatic cancer.
- Supported the development of companion diagnostic strategies aligned with clinical studies and translational research goals.

NYU Grossman School of Medicine, New York, NY

06/2021-01/2024

Senior Research Scientist (10/2023 – 01/2024)

Research Scientist (06/2021 – 10/2023)

- Led a translational drug discovery program in PDAC that identified an epigenetically regulated macrophage polarization mechanism limiting immunotherapy response and demonstrated that combining hypomethylating therapy with low-dose HDAC inhibition improved efficacy in preclinical models.
- Designed, optimized, and implemented complex *in vitro* co-culture systems involving multiple immune cell populations to support mechanism-of-action and therapeutic response studies.
- Supported multiple oncology programs through execution of diverse *in vitro* and *in vivo* studies, including mouse survival surgeries and drug treatment procedures.
- Collaborated with clinical investigators to align experimental findings with clinical observations and patient outcomes, strengthening translational relevance and study interpretation.
- Managed multiple mouse colonies and authored IACUC and IRB protocols to support compliant execution of preclinical and translational research studies.
- Trained and supervised junior staff in complex experimental procedures, data analysis, and documentation practices, improving consistency, reproducibility, and operational efficiency across the team.

The Ohio State University, Columbus, OH

08/2017-06/2021

Post-Doctoral Researcher

- Led Non-Small Cell Lung Cancer (NSCLC) drug discovery studies that identified novel therapeutic targets capable of improving the efficacy of standard chemotherapy in preclinical models.
- Elucidated the role of the CTLH complex in NSCLC progression and therapeutic resistance, providing mechanistic rationale for downstream target validation.
- Investigated the role of IWS1 in mouse development, advancing understanding of its biological function *in vivo*.
- Designed and generated a conditional knockout mouse model to support functional studies of IWS1 in development and disease as well two constitutive CRISPR/Cas9 knock-in mouse models carrying single-nucleotide mutations.

Albert Einstein College of Medicine, Bronx, NY

09/2013-08/2017

Research Fellow

- Led a drug discovery program on anaplastic thyroid cancer (ATC) focused on PI3K pathway biology, identifying AGC kinases as candidate drivers of thyroid tumorigenesis through complementary genetic and chemical approaches.
- Optimized primary thyrocyte culture systems to enable robust mechanistic and target-validation studies.
- Established collaborations with pharmaceutical partners to identify and evaluate inhibitors targeting selected AGC kinases.

