Arturo Orlacchio, PhD

Long Island City, NY +1 347-309-7302 arturo@orlacchioresearch.com View my LinkedIn

EXECUTIVE SUMMARY

Translational scientist with 10+ years of experience bridging basic science and clinical research in oncology and immunology. Deep expertise in functional genomics, epigenetics, and biomarker-driven discovery. Proven track record leading studies from target discovery to preclinical validation, including human sample analysis, clinical assay development, and in vivo disease modeling. Experienced in supervising and mentoring research technicians and junior scientists to execute high-quality translational workflows. Strong collaborator across clinical and research teams, with a consistent ability to integrate laboratory findings into diagnostic and therapeutic strategies.

CORE COMPETENCIES

- Molecular biology
- Gene Editing
- Tumor Immunology
- Histology
- Mouse Models
- Epigenetic
- Trial Readiness & Assay Integration
- Assay Development & Validation
- Drug Discovery
- Biomarkers

CERTIFICATIONS

- ASQ Certified Six Sigma Black Belt (CSSBB), 2025
  Credential ID: 165966704 | Verify

WORK EXPERIENCE

Episteme Prognostics, Brooklyn, NY 01/2024-present

Senior Scientist - Principal Scientist

- Spearheaded the end-to-end development and validation of a novel chromatin accessibility platform to identify predictive biomarkers for pancreatic cancer, delivering a proof-of-concept that underpins the company's lead diagnostic program.
- Managed and mentored a high-performing team of 2 scientists, aligning individual performance goals with program milestones to drive the successful execution of key diagnostic projects.
- Drove the complete translational lifecycle of novel molecular assays, leading cross-functional teams (R&D, Clinical, Ops) to successfully advance diagnostics from R&D to full clinical trial readiness.
- Architected the end-to-end diagnostic workflow, integrating all CLIA/CLEP requirements and authoring the foundational documentation package (SOPs, validation protocols) to support LDT development.
- Served as the scientific lead for clinical collaborations, integrating biomarker discovery efforts with patient cohort selection to ensure 100% alignment with trial timelines.
- Implemented a rigorous QC and eligibility review process for longitudinal samples, preserving the integrity of 3 high-value patient cohorts and guaranteeing trial compatibility.

NYU Grossman School of Medicine, New York, NY 06/2021-01/2024

Research Scientist – Senior Research Scientist

- Spearheaded a translational drug discovery project that successfully identified a novel target to overcome epigenetic resistance in PDAC, advancing a new therapeutic strategy from concept to preclinical validation.
- Trained and mentored research technicians and junior scientists in complex *in vivo* protocols and data analysis, improving team productivity and ensuring high-quality, reproducible data generation.
- Engineered and optimized complex *in vitro* immune co-culture systems to accurately model the tumor microenvironment, creating a reliable platform for assessing drug efficacy and mechanism of action.
- Executed over 100 complex mouse survival surgeries to build and test orthotopic PDAC models, generating the critical *in vivo* efficacy data required to validate novel therapeutic targets.
- Drove the optimization and standardization of key immune profiling assays, establishing a robust, repeatable protocol that directly supported clinical trial-relevant biomarker discovery.

THE Ohio State University, Columbus, OH 08/2017-06/2021

Post-Doctoral Researcher

- Led a target discovery program that identified and validated 2 novel therapeutic targets in NSCLC, leveraging a multi-platform approach (CRISPR, conditional GEMMs) to build the preclinical case for a new drug development effort.
- Architected and implemented a scalable *in vivo* drug-testing pipeline, significantly increasing the throughput and efficiency of preclinical efficacy and tolerability screening.
- Drove key translational insights for multi-institutional projects by managing all PDX model studies and conducting analyses on retrospective clinical samples to correlate *in vivo* data with patient outcomes.
- Generated and compiled comprehensive data packages, including annotated tumor data and detailed experimental reports, to support IRB-regulated studies and secure grant funding.

Albert Einstein College of Medicine, Bronx, NY 09/2013-08/2017

Research Fellow

- Directed a target discovery program in anaplastic thyroid cancer that successfully identified and validated selected AGC kinases as critical oncogenic drivers, establishing them as a novel therapeutic target class for the disease.
- Initiated and managed a key pharmaceutical partnership to advance therapeutic candidates toward clinical translation, leading the preclinical evaluation of novel kinase inhibitors.
- Engineered and optimized a primary thyrocyte cell culture system, creating a critical platform that enabled the successful execution of functional assays.

SELECTED TECHNICAL SKILLS

Clinical/Diagnostic Applications:
- Handling and processing of clinical tumor tissues and blood samples
- cfDNA extraction, library preparation (for liquid biopsy applications).
- ATAC-seq & target enrichment protocols

Molecular & Cellular:
- Western Blot, ELISA, IP, qRT-PCR
- Flow cytometry
- RNA interference (siRNA, shRNA), CRISPR knockout/knockin, lentiviral transduction
- Primary immune cell isolation and culture (human/mouse T cells, macrophages)
- Cytokine secretion assays, in vitro polarization, cell viability/apoptosis assays

In Vivo:
- Survival surgeries (pancreatic orthotopic, subcutaneous, tail vein injection)
- Drug dosing (IP, IV, PO)
- Preclinical efficacy models (GEMMs, PDXs, CDXs, humanized mice, syngeneic systems)

Software:
Benchling, GraphPad Prism, FlowJo, ImageJ, UCSC Genome Browser, IPA, GSEA

SELECTED PUBLICATIONS

- "Continuous regression of metastatic pancreatic adenocarcinoma after suspending chemotherapy: a case report."
  Bayat L, **Orlacchio A**, Parrott D, Wu J. Case Rep Oncol (2025) https://doi.org/10.1159/000549360

- "RANBP9 and RANBP10 cooperate in regulating non-small cell lung cancer proliferation."
  Orlacchio, A. and Kajimura, Y., Rizzotto, L. *et al. J Exp Clin Cancer Res* **44**, 259 (2025). https://doi.org/10.1186/s13046-025-03491-8

- "*SGK1 is a critical component of an AKT-independent pathway essential for PI3K-mediated tumor development and maintenance.*"
  Orlacchio A, Ranieri M, Brave M, Arciuch VA, Forde T, De Martino D, Anderson KE, Hawkins P, Di Cristofano A. *Cancer Research*. 2017; 77(24):6914-6926. doi: 10.1158/0008-5472.CAN-17-2105

Full publication list

Professional website

EDUCATION

PhD – Life Sciences	University of Sannio, Benevento, BN, Italy
MS – Medical Biotechnologies	University of Sannio, Benevento, BN, Italy