



# Assunta De Rienzo

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## ● ABOUT ME

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- An experienced leader in the field of translational medicine and its clinical implementation with a focus on designing, coordinating and harmonizing biomarker strategies to advance basic and translational research for precision medicine in oncology. Biomarker lead on phase 1 and 2/3 studies. Skilled in planning and organizing workload and in delivering result in a timely manner
- 15+ years of experience in oncology, cellular/molecular biology and genomics. Directs a high-performing NGS technology team of 20 scientists and clinicians and actively collaborates with senior clinicians and academicians to establish and implement subgroups of strategic scientific activities (bioinformatics, biostatistics, clinical trials, database management).
- Development of molecular prognostic-based biomarker test for malignant pleural mesothelioma commercialized by Castle Biosciences, Inc.
- Identification of novel algorithm, the MPM Risk Score (MRiS) for patient stratification and prognosis after surgery
- Validation of diagnostic and prognostic molecular biomarker-based tests in solid tumors
- Discovery and characterization of AKT2 in solid tumors
- Identification of tumor suppressor genes in malignant pleural mesothelioma
- 45 research articles and reviews in peer-reviewed journals and presentations at national and international conferences
- Excellent team building, project planning and budget development skills have culminated into collaborative oncology projects with pharmaceutical and biotech companies, and successfully co-lead NIH grants including R01s and other foundation grants
- Extensive experience in design, execute, analysis and interpretation of molecular experiments (e.g., Nanostring, NGS, qRT-PCR, IHC)
- Working effectively with CROs to design and execute studies
- Excellent organization skills: clear and effective communication, team management, decision making

## ● WORK EXPERIENCE

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08/01/2022 – CURRENT Cambridge, United States

### **TRANSLATIONAL SCIENTIST BICYCLE THERAPEUTICS**

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- Lead translational research and exploratory biomarkers discovery to support phase 1 and 2/3 studies.
- Designing, conducting, and coordinating translational research activities at CROs including assay development, execution, and analysis of clinical data to ensure quality, prioritization, and timeliness across multiple programs
- Providing scientific and technological expertise to correlate biomarker expression with clinical outcomes.
- Leading immunogenicity analyses across programs
- Identifying, evaluating, and prioritizing candidate predictive biomarkers to support clinical development strategies
- Providing translational support to ongoing clinical trials through management of clinical samples in collaboration with clinical operation teams and updating of lab manual, kits, protocols etc.
- Participating in the preparation of regulatory submission related to biomarkers as well as presentations and scientific publications
- Experience in CDx development
- Leading collaborations with academia

12/01/2021 – 07/31/2022 San Diego, CA, United States

### **CONSULTANT BIOTHERYRYX, INC**

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- Providing strategic biology insights for the discovery and development of predictive biomarkers for sensitivity of small molecule targeted protein degraders
- Supporting the development of biomarker for clinical trial design and study protocols

Preparing scientific reports to identify new directions for biomarker development

07/01/2006 – 07/31/2022 Boston, United States

**CO-DIRECTOR, LEAD INVESTIGATOR THORACIC ONCOLOGY TRANSLATIONAL RESEARCH**  
BRIGHAM AND WOMEN'S HOSPITAL, BOSTON, MA

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- Leading a team of 6-8 scientists (postdocs, clinical fellows, senior laboratory technicians, and project managers) and overseeing a cross-functional teams of 20 including scientists, computational biologists, pathologists, statisticians, project managers, and administrators across projects
- Leading pre-clinical studies to identify novel biomarkers (i.e., BAP1, RERG), determine patient-stratifying criteria (i.e., diagnosis, prognosis, molecular clusters), validate molecular targets (i.e., CLDN15, VIM) using high-performing NGS technology, PCR, IHC, and systematically test novel hypotheses for their implementation in clinical trials
- Comprehensive knowledge of the workflow from patient selection to sample preparation and analyses of large omics-based datasets
- Leading studies to elucidate the genetic profile and intratumor heterogeneity lung cancers and identify signatures of immune response using next-generation and single-cell (10X Genomics and seqWell) and single-nuclei sequencing data
- Extensive experience in molecular test development using transcriptomic data for diagnosis of solid tumors, prediction of response to immunotherapy, prediction of survival for patients with mesothelioma (developed a prognostic molecular test in collaboration with Castle Biosciences, Inc.)
- Leading collaborations across academia and industries to identify opportunities in drug discovery
- Good knowledge of Good Clinical Practice (GCP) guidelines and institutional policies
- Fellowship in Medical Ethics, Harvard Medical School, Boston MA
- Member of the BWH Institutional Review Board for the revision of clinical protocols and amendments
- Expert reviewer of national and international agencies for academia and industry
- Successfully training and mentoring senior and junior scientists

**Funded Projects**

2017-Present	PI Thornton Junior Faculty Development Award
2017-2022	Co-Investigator (PI: Raphael Bueno) (20%), NCI-NIH 2R01CA120528-11A1
2006-2017	Co-Investigator (PI: Raphael Bueno) (20%), NCI-NIH 2R01CA120528
2012-2013	PI Mesothelioma Research Grant Award
2012	PI Brigham and Women's Hospital – Microgrants

Leading author and coauthor of 45 publications in peer reviewed journals, plus chapters and invited reviews

(<http://www.ncbi.nlm.nih.gov/sites/myncbi/1he9fqhuHSdkn/bibliography/48042070/public/?sort=date&direction=descending>)

12/01/2018 – 12/31/2024 Boston, United States

**ASSISTANT PROFESSOR OF SURGERY HARVARD MEDICAL SCHOOL**

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Leading a team of 6-8 scientists (postdocs, clinical fellows, senior laboratory technicians, and project managers) and overseeing a cross-functional teams of 20 including scientists, computational biologists, pathologists, statisticians, project managers, and administrators across projects

● **EDUCATION AND TRAINING**

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11/15/1984 – 10/12/1991 Napoli, Italy

**MASTER DEGREE IN BIOLOGICAL SCIENCES** University "Federico II"

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12/15/1991 – 12/19/1994 Napoli, Italy

**PH.D. IN BIOTECHNOLOGY** University "Federico II"

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11/15/2003 – 07/01/2007 Napoli, Italy

**PH.D. IN PATHOLOGY OF CELLULAR SIGNAL TRANSDUCTION** University "Federico II"

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10/01/2013 – 05/15/2014

**FELLOWSHIP IN MEDICAL ETHICS** Harvard Medical School

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## ● LANGUAGE SKILLS

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Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C2	C2	C2	C2	C2

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## ● MANAGEMENT AND LEADERSHIP SKILLS

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### Science Advisory Board

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Mesothelioma Applied Research Foundation (2017-2020)

### Editor

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Cancer (2019-2022)

### Awards Committee

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Research Excellence Awards Committee, Biomedical Research Institute, Brigham and Women's Hospital, Boston USA (2010-13)

### Member of the Institutional Review Board

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Brigham and Women's Hospital (2016-2022)