MANUELA VENTURA, PhD

WORK EXPERIENCE

April 2022 – Present **Head of Preclinical Research Facility – Human Technopole, Milan, Italy**

- Lead strategic vision and compliance of the facility with ethical, legal, and regulatory requirements.
- Collaboratewith various stakeholders and integrating advanced technologies to enhance research capabilities.

May 2019 – Mar 2022 **Manager, STTARR Innovation Centre, Toronto, Canada**

- Manage the facility, including budget, staff, and technology upgrades.
- Drive preclinical imaging studies and facilitated research translation and commercialization.
- Drive design and execution of Preclinical Imaging, Oncology, and Pharmacology studies, while adhering to industry regulations and safety standards, and ensuring the highest quality services.

Jan 2018 – May 2019 **Scientific Associate – University Health Network - STTARR Innovation Centre, Toronto, Canada**

- Led collaborations with multiple industry partners, providing comprehensive support to the clients from study conception to completion and managed project budgets and timelines.
- Involved in data collection, analysis, and presentation of scientific reports.

Dec 2017 – Jan 2020 **Application Specialist North America – Molecubes NV, Ghent, Belgium**

- Training and applications support on Molecubes preclinical PET, SPECT and CT imaging systems.

Jan 2015 – Jan2019 **Application Specialist North America – Aspect Imaging, Shoham, Israel**

- Training and applications support on Aspect MRI clinical and preclinical 1.0T systems.

Jan 2014 – Jan 2018 **Postdoctoral Fellow –University Health Network, STTARR Innovation Centre, Toronto, Canada**

- Led preclinical projects on image-guided drug delivery, including CT, MRI, Optical and Nuclear Medicine Imaging modalities, PK/PD and efficacy studies.

EDUCATION AND TRAINING

Nov 2009 – Nov 2013 **PhD in Medical Science - Radboud University, Nijmegen, the Netherlands**

Oct 2007 – Jul 2009 **MSc Medical Biotechnology – University of Torino, Italy**

2004 – Oct 2007 **BSc Biotechnology – University of Torino, Italy**

1999 – 2004 **Diploma of Qualified Chemist – Istituto Tecnico Industriale L. Casale, Torino, Italy**

LIST OF PEER REVIEWED PUBLICATIONS:

Ferrari M, Taboni S, Chan HHL, Townson J, Gualtieri T, Franz L, Ruaro A, Methews S, Daly MJ, Douglas CM, Eu D, Sahovaler A, Muhanna N, Ventura M, 14 more, Irish JC. Hydrogel-chitosan and polylactic acid-polycaprolactone bioengineered scaffolds for reconstruction of mandibular defects: a preclinical in vivo study with assessment of translationally relevant aspects. Research Square. 2023

Wyszatko K, Silva LR, Komal T, Kwon LY, Ventura M, Singh S, Valliant JF, Sadeghi S. O-30 Preclinical development of CD133 targeted immunoPET probes. Nuclear Medicine and Biology. 2022.

Woolman M, Qiu J, Fischer C, Ferry I, Dara D, Katz L, Daud F, Wu M, Ventura M, Bernards N, Chan H, Fricke I, Zaidi M, Wouters B, Rutka J, Das S, Irish J, Weersink R, Ginsberg H, Jaffray D, Zarrine-Afsar A. In situ tissue pathology from spatially encoded mass spectrometry classifiers visualized in real time through augmented reality. Chem. Sci. July 2020.

Ventura M, Bernards N, De Souza R, Fricke IB, Hendriks BS, Fitzgerald JB, Paz N, Lee H, Klinz SG, Zheng J. Longitudinal PET imaging to monitor treatment efficacy by liposomal irinotecan in orthotopic patient-derived pancreatic tumor models of high and low hypoxia. [Accepted for publication – Mol Imaging Biol, May 2019.

Bernards N, Ventura M, Fricke IB, Hendriks BS, Fitzgerald J, Lee H, Zheng J. Liposomal Irinotecan Achieves Significant Survival and Tumor Burden Control in a Triple Negative Breast Cancer Model of Spontaneous Metastasis. Mol Pharm. 2018 Sep 4;15(9):4132-4138.

Lee H, Gaddy D, Ventura M, Bernards N, de Souza R, Kirpotin D, Wickham T, Fitzgerald J, Zheng J, Hendriks BS. Companion Diagnostic 64Cu-Liposome Positron Emission Tomography Enables Characterization of Drug Delivery to Tumors and Predicts Response to Cancer Nanomedicines. Theranostics. 2018 Mar 21;8(9):2300-2312.

Woolman M, Gribble A, Bluemke E, Zou J, Ventura M, Bernards N, Wu M, Ginsberg HJ, Dasc S, Vitkin A, Zarrine-Afsar A. Optimized Mass Spectrometry Analysis Workflow with Polarimetric Guidance for Efficient ex vivo and in situ Sampling of Biological Tissues. Sci Rep. 2017 Mar 28;7(1):468.

Bilkey J, Tata A, Mckee TD, Porcari AM, Bluemke E, Woolman M, Ventura M, Eberlin MN, Zarrine-Afsar A. Variations in the Abundance of Lipid Biomarker Ions in Mass Spectrometry Images Correlate to Tissue Density. Analytical Chemistry. 2016.

Matsumoto Y, Larose J, Kent OA, Wagner MJ, Narimatsu M, Levy AD, Tong J, Krieger JR, Riggs E, Storozhuk Y, Pasquale J, Ventura M, Moran MF, Grynpas MD, Wrana JL, Superti-Furga G, Koleske AJ, Pendergast AM, Rottapel R. Reciprocal stabilization of ABL and TAZ regulates embryonic skeletal development through activation of the master transcription factor RUNX2. J Clin Invest. 2016 Dec 1;126(12):4482-4496.

Tata A, Woolman M, Ventura M, Bernards N, Ganguly M, Gribble A, Ginsberg H, Vitkin A, Zheng J, Zarrine-Afsar A. Rapid Detection of Necrosis in Breast Cancer with Desorption ElectroSpray Ionization Mass Spectrometry. Sci Rep. 2016 Oct 13;6:35374.

Bilkey J, Tata A, McKee TD, Porcari AM, Bluemke E, Woolman M, Ventura M, Eberlin MN, Zarrine-Afsar A. Variations in the Abundance of Lipid Biomarker Ions in Mass Spectrometry Images Correlate to Tissue Density. Anal Chem. 2016 Dec 20;88(24):12099-12107.

Juneja SC, Ventura M, Jay DG, Veillette C. A Less Invasive Approach of Medial Meniscectomy in Rat: A Model to Target Early or Less Severe Human Osteoarthritis. J Arthritis 2016, 5:2.

Tata A, Gribble A, Ventura M, Ganguly M, Bluemke E, Ginsberg G, Jaffray D, Ifa DR, Vitkin A, Zarrine-Afsar A. Wide-Field Tissue Polarimetry Allows Efficient Localized Mass Spectrometry Imaging of Biological Tissues. Chemical Science Dec 2015.

Zou J, Talbot F, Tata A, Ermini L, Franjic K, Ventura M, Zheng J, Ginsberg H, Post M, Ifa DR, Jaffray D, Miller RJ, Zarrine-Afsar A. Ambient Mass Spectrometry Imaging with Picosecond Infrared Laser Ablation Electrospray Ionization (PIR-LAESI). Anal Chem. 2015 Dec 15;87(24):12071-9.

Zheng J, De Souza R, Ventura M, Allen C, Jaffray DA. Chapter 6 title: The Role of Imaging in Nanomedicine Development and Clinical Translation. Book title: Nanomedicines: Design, Delivery and Detection. Editor: Dr. Martin Braddock. Publisher: Royal Society of Chemistry Publishing, Thomas Graham House. 2016.

Pippenger BE, Ventura M, Pelttari K, Feliciano S, Jaquiery C, Scherberich A, Walboomers XF, Barbero A, Martin I. Bone-forming capacity of adult human nasal chondrocytes. J Cell Mol Med. 2015 Feb 16.

Ventura M, Boerman OC, de Korte C, Rijpkema M, Heerschap A, Oosterwijk E, Jansen JA, Walboomers XF. Preclinical Imaging in Bone Tissue Engineering. Tissue Eng Part B Rev. 2014.

Ventura M, Boerman OC, Franssen GM, Bronkhorst E, Jansen JA, Walboomers XF. Monitoring the biological effect of BMP-2 release on bone healing by PET/CT. J Control Release. 2014 Jun 10;183:138-44.

Ventura M, Franssen GM, Oosterwijk E, Boerman OC, Jansen JA, Walboomers XF. SPECT versus PET monitoring of bone defect healing and biomaterial performance in vivo. J Tissue Eng Regen Med. 2014.

Ventura M, Sun Y, Cremers S, Borm P, Birgani ZT, Habibovic P, Heerschap A, van der Kraan PM, Jansen JA, Walboomers XF. A theranostic agent to enhance osteogenic and magnetic resonance imaging properties of calcium phosphate cements. Biomaterials. 2014 Feb;35(7):2227-33.

Kisiel M, Klar AS, Ventura M, Buijs J, Mafina MK, Cool SM, Hilborn J. Complexation and sequestration of BMP-2 from an ECM mimetic hyaluronan gel for improved bone formation. PLoS One. 2013 Oct 22;8(10):e78551.

Kisiel M, Klar AS; Martino MM; Ventura M; Hilborn J. Evaluation of injectable constructs for bone repair with a subperiosteal cranial model in the rat. PlosONE. PLoS One. 2013;8(8):e71683.

Ventura M, Sun Y, Rusu V, Laverman P, Borm P, Heerschap A, Oosterwijk E, Boerman OC, Jansen JA, Walboomers XF. Dual Contrast Agent for Computed Tomography and Magnetic Resonance Hard Tissue Imaging. Tissue Eng Part C Methods. 2013. 19(6):405-16.

Ventura M, Sun Y, Oosterwijk E, Jansen JA, Walboomers XF, Heerschap A. Zero echo time magnetic resonance imaging of contrast-agent-enhanced calcium phosphate bone defect fillers. Tissue Eng Part C Methods. 2013 Apr;19(4):281-7.

Kisiel M, Martino MM, Ventura M, Hubbell JA, Hilborn J, Ossipov DA. Improving the osteogenic potential of BMP-2 with hyaluronic acid hydrogel modified with integrin-specific fibronectin fragment. Biomaterials. 2013 Jan;34(3):704- 12.

Kisiel M, Ventura M, Oommen PO, George A, Walboomers XF, Hilborn J, Varghese OP. Critical assessment of rhBMP-2 mediated bone induction: an in vitro and in vivo evaluation. J Control Release. 2012;162(3):646-53.

Autorizzo il trattamento dei miei dati personali ai sensi del Dlgs 196 del 30 giugno 2003 e dell'art. 13 GDPR.