Elia Ranzato

Curriculum vitae

BIO AND EDUCATION

Elia Ranzato (ERa) was a very bright student who would get top grades at any of his exams. Because of his excellent school performance, ERa took a fast track to graduation in Biological Sciences (summa cum laude). After that, he joined a Doctorate Programme at University of Piemonte Orientale, Alessandria undertaking "environmental-related" projects, developing a battery of stress and exposure biomarkers.

At the end of his Ph.D., ERa decided to move to "hypothesis-driven" research as a post-doctoral fellow. Since then, one of ERa's main goal has been the development of new and more effective treatment modalities for mesothelioma (MMe). ERa has demonstrated that ascorbate is selectively cytotoxic for MMe. and shown a synergistic interaction of ascorbate with epigallocatechin-3-gallate (EGCG) and gemcitabine, thus, providing the first demonstration of T-type Ca^{2+} channels expression in MMe cells and a novel mechanism of action of EGCG.

ERa's also been focusing on wound repair and regeneration process. His research takes advantage of various models and employs a wide range of methodologies. ERa has developed an in vitro human wound-healing model that allows him to investigate the effects of various agents and experimental conditions on the wound re-epithelialization process. ERa is currently using both platelet derivatives and natural compounds (such as lichen extracts and honeys), as experimental tools in order to perform a more in-depth analysis, in terms of cell biology and proteomics, of the mechanisms of wound healing.

UNIVERSITY CAREER

2015-	Fixed Term Researcher, Comparative Anatomy and Cytology, SSD BIO/06, DiSIT, Università del Piemonte Orientale
2014-2015	Fixed Term Researcher, Molecular Biology, SSD BIO/11, DiSIT, Università del Piemonte Orientale
2013-2014	Post-doc, DiSIT, Università del Piemonte Orientale
2012	Post-doc, Molecular Histology and Cell Growth - San Raffaele Scientific Institute, Milano
2006-2011	Post-doc, Università del Piemonte Orientale
2002-2005	PhD (scienze ambientali: acque interne e agroecosistemi), Università del Piemonte Orientale
2002	Degree in Biological Sciences (*summa cum laude*)

SCIENTIFIC POSITIONS

2015-	Editorial Board Member of Evidence-Based Complementary and Alternative Medicine
2015-	Editorial Board Member of Journal of Dermatological Research
2015-	Editorial Board Member of Journal of Cell
2015-	Editorial Board Member of Gastroenterology and Hepatology
2015-	Review Editor of Frontiers in Cellular Biochemistry
2014-	Editorial Board Member of Burns &Trauma
2014-	Advisory Board Member of World Research
2014-	Journal of Cell Biology Editorial Board
2014-	Member of Cancer Research Journal
2014-	Associate Editor of Journal of Integrated OMICS
2014-	Editorial Board Member of Tissue Engineering
2013-	Editorial Board of World Journal of Translational Medicine (WJTM)
2012-	Socio European Association for Cancer Research (EACR)
2011-	Socio Associazione Biologia Cellulare e del Differenziamento (ABCD)
2010-	Marquis Who's Who in the World Edition Member
2010-	Socio Associazione Italiana Colture Cellulari (AICC)

MAIN FIELDS OF INTEREST

1. Cell and Molecular Biology of Cancer
2. Nutraceuticals
3. Tissue Regeneration and wound repair
4. Use of natural products
5. Honey and propolis in wound repair.

CURRENT ISSUES OF RESEARCH

1. **Wound repair and regeneration process**
   This scientific activity is conducted on various models and employs a wide range of methodologies. In particular, Elia Ranzato has developed an *in vitro*, human wound-healing model able to investigate the effects of various agents and experimental conditions on the wound re-epithelialization process. ERa is currently using both platelet derivatives and natural compounds, as experimental tools, in order to perform a more in-depth analysis, in terms of cell biology and proteomics, of the mechanisms of wound healing.
2. **Honey: the healing secret of bees**
   Elia Ranzato is actually using honey as novel natural compound for wound and tissue repair and regeneration. His project is undertaken to add value to the existing honey resources by developing products with therapeutic benefit (i.e. for the treatment and management of moist wounds such as burns and ulcers). This process involves the identification of the appropriate floral sources, the evaluation of the "active" agent(s), and the understanding of cellular and molecular events occurring during wound repair and regeneration processes induced by honey.

CURRENT FUNDED PROJECTS

BANDO	TITOLO DEL PROGETTO
2016-2018	Grant from University of Piemonte Orientale, "Studio comparativo dei recettori TLR (toll-like receptors) in organismi intervebrati e vertebrati", Principal Investigator
2016-2018	Research on Ageing diseases 2015 – Cariplo Grant "Molecular linkage between translation, epigenetic changes and metabolism and the development of insulin resistance" PI: Prof. Stefano Biffo (UniMI), Prof. Elisa Robotti (UPO) Co-Principal Investigator
2012-2014	Yamada Research Grant (Japan), October 2012- September 2014 "Mechanism of Honey-induced Epithelial Mesenchymal Transition in Wound Repair" Principal Investigator
2010-2011	Yamada Research Grant (Japan), September 2010 – October 2011 "Cellular and molecular mechanisms of honey wound healing" Principal Investigator

TOP FIVE PAPERS

1. Elia Ranzato et al.
   Epigallocatechin-3-gallate elicits Ca^{2+} spike in MCF-7 breast cancer cells: essential role of Cav3.2 channels,
   Cell Calcium 2014; 56: 285–295. doi: 10.1016/j.ceca.2014.09.002
2. Viviana Volta*, Elia Ranzato* et al.
   Preclinical study of active nutrients/drug combination as a potential treatment for malignant pleural mesothelioma.
   PLoS ONE 8(3): e58051. 2013 doi:10.1371/journal.pone.0058051
   * equal contribution
3. Elia Ranzato et al.
   Epithelial mesenchymal transition traits in honey-driven keratinocyte wound healing: comparison among different honeys.
   Wound Repair and Regeneration 2012 20(5):778-85.
   doi: 10.1111/j.1524475X.2012.00825.x.
4. Elia Ranzato*, Simona Martinotti* et al.
   Epigallocatechin-3-gallate induces mesothelioma cell death via H2O2-dependent-T-type Ca2+ channel opening,
   Journal of Cellular and Molecular Medicine 2012; 16(11):2667-78
   doi: 10.1111/j.1582-4934.2012.01584.x
5. Elia Ranzato et al.
   Platelet lysate stimulates scratch wound repair of HaCaT keratinocytes,
   British Journal of Dermatology 2008, 159: 537-545. doi 10.1111/j.1365-2133.2008.08699.x

AWARDS

2011: Junior Researcher Prize - Associazione Italiana di Colture Cellulari (AICC) – Italian Branch of European Tissue Culture Society

FURTHER INFORMATION

- Co-Founder and Organizer,
  Caffè Scienza Alessandria, https://caffescienza.wordpress.com/
- Member of the Steering Committee, Associazione Cultura e Sviluppo, Alessandria.
- Member of the Board of Directors, “Fondazione Sant’Evasio”, Casale Monferrato.
- Member ANPI section Eusebio Giambone - Camagna Monferrato
- Founder and member of Associazione culturale Camagna Paesaggi Arte e Cultura.
- Teacher in the field of "science, technology and the common good" of the University of the Third Age (Unitre) of Alessandria.