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Arnaud Martino Capuzzo

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Gender: Male | **Date of birth**: Aug 30 1996 | **Nationality**: Italy

PREFERRED JOB

Scientist

WORK EXPERIENCE

[04/2025 - 09/2025]

Intern

Aptuit (Verona) Srl, an Evotec Company , Via Alessandro Fleming 4 - VERONA (VR) Italy
Company sector: R&D and patents
Business or sector: biomedical
Main activities and responsibilities: Trained through internal courses and practical experience to work under GLP conditions, OECD Guidelines and facility SOPs.
Acquired skills and achieved objectives: Main activities included providing support in the application of procedures within safety assessment and immunoassay.

Safety Assessment – Genotoxicology
• Ames test (bacterial reverse mutation assay) performed in standard conditions
• In vitro micronucleus assay in mammalian cells, including scoring of micronucleated cells and cytotoxicity assessment (e.g., PCE/NCE ratio, proliferation indices)
• In vivo micronucleus test in rodents (bone marrow), with evaluation of immature erythrocytes and micronuclei frequency
• Application of OECD and ICH guidelines for study design, conduct, and data interpretation
• Experience with assay validation parameters, including accuracy, precision, linearity, specificity, and reproducibility
• Data analysis and statistical evaluation according to regulatory standards (e.g., Kruskal–Wallis, pairwise comparison, trend analysis)
• Preparation of study documentation in compliance with GLP principles

Immunoassay
• DNA extraction from tissues, blood, plasma, and urine (column-based and magnetic bead-based kits)
• DNA and RNA quantification (PicoGreen, spectrophotometric and fluorometric assays)
• RNA extraction from viral vectors and biological samples (plasma, urine, tissue)
• Quantitative PCR (qPCR) and RT-qPCR (TaqMan, One-Step, SensiFAST)
• Primer/probe design and optimization (ratio, concentration, and thermocycling conditions)
• Assay validation and performance evaluation (following internal SOP):
• ELISA (sandwich immunoassay) for soluble protein quantification
• Use of automated platforms and instruments including Tissue Lyser II, centrifuge-based extraction systems, QuantStudio 7 Pro (qPCR), and SpectraMax i3x (fluorescence and absorbance measurements).
• Support in flow cytometry (sample staining and preparation for BD FACSLyric analysis)

[10/2024 - 03/2025]

PhD Internship

Institut for Regenerative Medecine & Biothérapies (IRMB) - MONTPELLIER France
Business or sector: biomedical
Main activities and responsibilities: Production and characterization of extracellular vesicles from murine stem cells and their interaction with gold nanoparticles.
Group leader: Danièle Noel.
Project: 'Extracellular vesicles labeled with gold nanoparticles for Micro-CT detection'
Acquired skills and achieved objectives: Extracellular Vesicles, Cell Culture, Micro-CT.

[09/2020 - 02/2021]

Master's Degree Internship

CellDynamics - BOLOGNA, EMILIA-ROMAGNA (BO) Italy

Company sector: Engineering and design
Business or sector: biomedical
Main activities and responsibilities: Development of the MCF-7 spheroid model in the laboratory and the use of a microfluidic-based technology, the CELLviewer. My internship allowed me to present my graduation project at the European Biotechnology Congress in 2020.
Group leader: Daniele Vigo, Simone Pasqua, Daniele Gazzola.
Acquired skills and achieved objectives: Cell Culture, 3D in vitro model, Microfluidic live imaging, Epifluorescence.

EDUCATION AND TRAINING

[2022 - present]

PhD in Nanoscience and Advanced Technologies

Università degli Studi di VERONA
Town: VERONA
EQF level: 8
NQF level: Doctor of Philosophy (Ph.D.)
Principal subjects/occupational skills covered:
Characterization of extracellular vesicles derived from primary adipose and mesenchymal cells and their interaction with commercial nanoparticles used as contrast medium on some preclinical murine models. I have improved some cell culture and molecular biology methodologies, achieved the in vivo A function for animal experimentation and use of magnetic resonance and micro-CT.

[2019 - 2021]

VETERINARY BIOTECHNOLOGY SCIENCES

Università degli Studi di MILANO
Town: MILANO
2nd level degree in Pharmaceutical, veterinary and medical biotechnologies
Final degree mark: 107/110
EQF level: 7
NQF level: 2nd cycle degree/Master of Science (2 years)
Dissertation/thesis title: MICROFLUIDIC LIVE-IMAGING TECHNOLOGY TO PERFORM RESEARCH ACTIVITIES IN 3D MODELS

[2015 - 2019]

ANIMAL PRODUCTION SCIENCES

Università degli Studi di MILANO
Town: MILANO
1st level degree in Animal husbandry
Final degree mark: 98/110
EQF level: 6
NQF level: 1st cycle degree/Bachelor (3 years)
Dissertation/thesis title: VALUTAZIONE CHIMICO-NUTRIZIONALE, DEL CONTENUTO IN POLIFENOLI E ANTIOSSIDANTI IN SCARTI E SOTTOPRODOTTI DELL'INDUSTRIA ALIMENTARE

PRE-UNIVERSITY STUDIES

[2015]

Secondary school diploma: Vocational School, Technological sector, Agriculture, agri-food and agro-industry specialisation, Production and processing focus
Italian secondary school diploma

LANGUAGE SKILLS

Mother tongue(s): French **Mother tongue(s):** Italian

Other language(s)

English

LISTENING: B2 **READING:** B2 **WRITING:** B2
SPOKEN INTERACTION: B2 **SPOKEN PRODUCTION:** B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference for Languages

DIGITAL COMPETENCES

SELF-ASSESSMENT				
INFORMATION AND DATA LITERACY	COMMUNICATION AND COLLABORATION	DIGITAL CONTENT CREATION	SAFETY	PROBLEM SOLVING

Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital competences - Self-assessment grid

DRIVING LICENCE

Driving licence category B / Car available

PUBLICATIONS

Journal articles

"Comparison between USPIOs and SPIOs for Multimodal Imaging of Extracellular Vesicles Extracted from Adipose Tissue-Derived Adult Stem Cells" ; International Journal of Molecular Sciences ; MDPI (2024)
www.researchgate.net/publication/383895000_Comparison_between_USPIOs_a...

"Microfluidic Live-Imaging Technology to Perform Research Activities in 3D Models" ; Annals of Advanced Biomedical Sciences (AABSc) ISSN 2641-9459 ; MEDWIN PUBLISHERS (2021)
www.researchgate.net/publication/349923987_Microfluidic_Live-Imaging_T...

"Updated modification about Spin Bioreactor" ; Journal of Engineering Technology and Applied Sciences ISSN No. 2455-2143 ; IJEAST (2020)
www.researchgate.net/publication/347557901_Updated_modifications_about...

"Microfluidic live-imaging with CELLviewer technology to perform biotechnological tasks" ; Journal of Engineering Technology and Applied Sciences ISSN No. 2455-2143 ; IJEAST (2020)
www.researchgate.net/publication/346473853_Microfluidic_live-imaging_w...