



Personal information

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Pubblications	
2021	Sampietro, M.; Cassina, V.; Campanile R. <i>et al</i> : "The Nanomechanical Properties of CLL Cells Are Linked to the Actin Cytoskeleton and Are a Potential Target of BTK Inhibitors" – HemaSphere, August 2023. DOI: 10.1097/HS9.0000000000000031
Working experience	
September 2022 - June 2023	Professor of Physics and Electrical Engineering and coordinator of the STEM laboratory at the Galdus Higher Vocational School I have worked as a professor of Physics and Electrical Engineering and coordinator of the STEM laboratory course for classes from the second to the fourth year at the Galdus Higher Vocational School (Via Pompeo Leoni, 2, 20141 Milano MI).
September 2021 - June 2023	Professor of Electrical Engineering at Galdus Higher Vocational School I have worked as a professor of Electrical Engineering for classes from the first to the fourth year at the Galdus Higher Vocational School (Via Pompeo Leoni, 2, 20141 Milano MI).
June 2023	Tutor (type D) for undergraduate students at university Tutoring activity aimed at bringing small groups of high school students to the medical professions.
September 2021 - September 2022	Tutor (type D) for first-year students at university Tutoring for first-year students of the Degree in Physics of the University of Milano- Bicocca (20h of follow-up and training, 58h of tutoring). The activity carried out on behalf of the university is certified by open badge.

Education and training

November 2022 - present	PhD School at University of Milano-Bicocca To date I am a PhD student in DIMET (Translational and Molecular Medicine) at School of Medicine and Surgery Department.
October 2020 – October 2022	 Master Degree in Applied Physics at University of Milano-Bicocca Master's Degree with full marks with honors in Physics (110 cum Laude/110) Curriculum of Particle Physics and Applied Physics, Biophysics. Title of the thesis: Nanomechanics characterization of Primary Leukemic Cells by Atomic Force Microscopy. Supervisors: Professor Giuseppe Chirico, Professor Francesco Mantegazza; Co-supervisor Dr. Valeria Cassina. Abstract: The thesis focused on the characterization of primary leukaemia cells affected by Chronic Lymphocytic Leukemia (CLL) and primary healthy B lymphocytes (HB), using the cell elasticity parameter. The study was performed by means of Atomic force Microscopy (AFM) in force spectroscopy mode (AFM-FS). Through indentation experiments I have studied the response of the cells to the imposition of an external force/stimulus and described it by Young's Modulus (a physical parameter that represents the deformability and the stiffness of a material). In addition, the effect of an anticancer drug (Ibrutinib) on both types of cells has been studied in relation to their mechanical properties.
October 2020 - June 2021	Tutoring Online Project - Harvard University and Bocconi University Collaborative project as a tutor and telestudy assistant for children with learning disabilities (ADHD - Attention Deficit Hyperactivity Disorder, SLD - Specific Learning Disorders). The project was aimed to provide support for an undergraduate high school student during the blended education period due to COVID-19.
September 2017 - September 2020	 Bachelor Degree in Physics at University of Milano-Bicocca Bachelor Degree in Physics Thesis work: Lévy Flights Model for Enhanced Diffusion. Supervisors: Professor Collini Maddalena, Dr. Bouzin Margaux Abstract: This work consists in a characterization between conventional Brownian diffusion model and Lévy flights model for enhanced diffusion. Aim of this work is to shed the light on the characteristics cellular pathway followed by proteins or small molecules in a crowded micro-environment.
September 2012 - June 2017	Scientific High School Diploma at Niccolò Machiavelli, Pioltello (MI)
Personal skills and competences	
Mother tongue	Italian
Other languages	English - B2 Spanish: I attended Spanish courses during secondary school and I often travelled in Spain to improve my language ability. I'm attending a C1 Spanish class at Rosetta Stone . Portuguese: thanks to the Babbel platform, I'm currently learning the fundamentals and grammar of Portuguese on my own.

Personal competences	Ability to act as a facilitator of learning experiences, allowing students to share their passion and curiosity. Application of dedication, skills and desire to positively affect the lives of students. Ability to work in group as a researcher in a biophysical lab. I achieved these skills during my bachelor and master degrees
Relational competences	My experience as a professor gave me the opportunity to better develop my public relations, public speaking and organisation skills by the organization of lectures, events and seminars as staff leader. As well, through this experience, I learned how to interact and communicate with students with learning (ADHD - Attention Deficit Hyperactivity Disorder, SLD - Specific Learning Disorders) and behavioural disabilities (ODD - Oppositional Defiant Disorder). My experience as a student working in a lab team has allowed me to improve inter- personal skills as team leadership, teamwork and supervisory skills aimed to establish a productive working environment between both my colleagues and profes- sors.
Organisation and leading skills	My experience as a professor allowed me to develop skills in the preparation of <i>ad-hoc</i> material for each student in order to allow an easy understanding and acquisition of teaching notions.
Technical skills and competences	Laboratory skills During the writing of my master's thesis I learned to use Atomic Force Microscopy in Force Spectroscopy mode (AFM-FS). I used AFM-FS to characterize through inden- tation experiment cardiomyocytes, Chronic Lymphocytic Leukemia (CLL) cells and Healthy B (HB) cells and other biological samples. During my Master Degree's laboratories I studied: fluorescence measurements about fluorescence lifetime, molecular binding and fluorescence polarization anisotropy by mean of a phase modulation fluorometer; scattering measurements aimed to the de- termination of the radius of protein by mean of a classical scattering apparatus; mi- croscopy measurements about hemodynamic in zebrafish and mobility of spores of yeast, by mean of LEICA microscope; fluorescence correlation spectroscopy measure- ments about simulation of cellular crowding and the determination of geometrical char- acteristics of nanorods by mean of a two photon excitation system (Nikon TE300 optic microscope and a Tsunami Ti:Sa tunable IR laser); optical tweezers measurements about the determination of diffusion coefficient for nanorods by mean of a standard optical tweezer set-up. I analyzed the data taken with previous instruments and I developed a code to verify the accuracy of the diffusion coefficients estimated through fluorescence correlation spectroscopy approach.
Computer skills and competences	Computer programming: C, C++, PYTHON, MATLAB, ROOT. OriginPro software. IAT _E X text editor for scientific thesis and articles. Linux operative systems. Microsoft Windows operative systems and Office Package.
Further Experiences and Personal Interests	
Science communication	 LabEx Tutor: LabEx is a project created by the Physics Department of the University of Milan-Bicocca and promoted by the Ministry of University and Research with the aim of bringing high school students closer to the world of science by involving them in various scientific experiments. Open Day: I attended talks and workshops for University orientation aimed at high school students.
Tutoring	I've been working as Math, Physics, English and Science tutor for both high school and university students.
Other activities	 Volley: I have played volleyball at a competitive level in FIPAV championships. Driving licence B

Il sottoscritto/a dichiara di essere consapevole della responsabilità penale cui puù andare in contro in caso di dichiarazioni mendaci ai sensi e per gli effetti dall'art. 76 del D.P.R. 445/2000. Il/La sottoscritto/a esprime il proprio consenso affinchè i dati personali forniti possano essere trattati, nel rispetto del D.Lgs 196/2003, per gli adempimenti connessi alla presente procedura.

Milan, 28/07/2023

Riccardo Camapanile

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