Fabio Mammano (ORCID ID: 0000-0003-3751-1691) has a strong background in Physics and Mathematics and obtained his PhD from SISSA in Neurobiology. F.M. moved to England for several years, where he worked with Prof. Jonathan Ashmore (F.R.S.) on fundamental aspects of hearing. Upon returning to Italy, first as Assistant Professor at SISSA (Trieste) and later as Associate Professor at UniPD and Principal Investigator at the Veneto Institute of Molecular Medicine (Padova, Italy), he focused on molecular mechanisms of hearing loss and pioneered gene therapy treatment for deafness caused by connexin mutations using recombinant adeno associated viral vectors (rAAV), supported by a EU-funded project (EuroHear) as well as by charities such as Fondazione Telethon, Fondazione Cassa di Risparmio – Padova, and Fondazione per la Ricerca Biomedica Avanzata - Padova. Research in the laboratory of F.M. has been generously supported also by the Italian Ministry of Research (MUR), the National Research Council of Italy (CNR), Istituto Nazionale per la Fisica della Materia (INFM), UniPD and SISSA. From 2014 to 2018, F.M. served as Director of the CNR Institute of Cell Biology and Neurobiology (Rome). Currently, he holds a double appointment as Full Professor of Biophysics at UniPD as well as Type A Research Associate at CNR-IBBC. Since 2018, F.M. is also the National Delegate at the EU/ESFRI INFRAFRONTIER Research Infrastructure for modeling human disease (https://www.infrafrontier.eu/), appointed by the MUR, as well as the National Delegate at the International Mouse Phenotyping Consortium (https://www.mousephenotype.org/), appointed by the President of the CNR. In the last decade or so, F.M. worked on Cancer photodynamic therapy and has been recently awarded a Principal Investigator grant from the Italian Cancer Research Association (AIRC) and a PRIN 2022 grant, of which he is the national coordinator; both grants are in collaboration with prof. Arianna Calistri. At the moment, he is studying the role of connexins in glioblastoma and, in collaboration with Prof. Francesco Zonta, has developed mAbs that target connexin hemichannels with proven efficacy *in vivo*, in mouse models of disease. F.M. has co-authored more than 100 peer-reviewed articles that have been cited more than 6000 times (h-index 46, Google Scholar).

Arianna Calistri (A.C.), Associate Professor of Microbiology, Department of Molecular Medicine, UniPD (2015-today); Scopus identifier: 6603060311; ORCID ID: 0000-0002-6881-7936. A.C. is a senior scientist with extensive experience in molecular and cell biology, as well as in classical and molecular virology. As a PhD student and after her graduation in Microbiological Sciences (2002) A. C. worked at the Division of Human Retrovirology, Harvard Medical School, Boston, MA, USA, initially as a research fellow (1999-2002) and then as a post-doctoral fellow (2002-2004), in the laboratory of Prof. Heinrich Göttlinger. There she contributed to seminal discoveries on the cellular/viral protein interplay involved in HIV-1 assembly and budding. Next, she moved back to Italy, as Assistant Professor at the Department of Molecular Medicine, UniPD (2005-2015). Since then, she acquired a strong expertise in the translation of basic research on a more specific and effective manipulation of viruses to be employed as therapeutic tools (with a focus on oncovirotherapy) or as transgene delivery systems. In addition, she got interested in the development of innovative antivirals and diagnostic tools. From 2012-2014, she served as seconded national expert (SNE) for the drafting and implementation of Community policies related to HIV/AIDS and chronic diseases at the Directorate General "Public Health and Consumer Safety" (SANCO), Unit C4 "Health determinants", at the European Commission's headquarters in Luxembourg, Luxembourg. In the last 5 years her research has been supported by grants from Fondazione Celeghin (PI), University of Padua (PI), CARIPARO, NATO Emerging Security Challenges Division Science for Peace and Security Programme, Italian Cancer Research Association (AIRC 2022) and Italian Ministry of Research (PRIN 2022). The last two grants are in collaboration with Prof. Fabio Mammano. A.C. is currently in the advisory board of the Italian as well as of the European Society for Virology. A.C. is author of 84 peer reviewed papers indexed in Scopus, with 2800 citations and an H-index of 24, (Scopus, August 2023).

Luca Persano (L.P), Assistant Professor of Applied Biology, Department of Women and Children's Health, University of Padova (from 2024). Scopus identifier: 8693588700; ORCID ID: 0000-0002-0050-3666; percentage of time devoted to the project: 10%.

Since his PhD studentship in Oncology and Surgical Oncology at University of Padua, L.P.'s studies have been focused on dissecting the molecular pathways underlying cancer progression and resistance to therapy, with particular focus on the role played by tumor microenvironment. Indeed, in the Laboratory of Molecular Immunology and Gene Therapy directed by Dr. Indraccolo, in which he achieved his PhD in 2009, his projects were committed to study the process of tumor angiogenesis and exploit its potential inhibition as a therapeutic strategy in different tumors including prostate, ovarian, esophageal and colon cancers. In 2009 L.P. moved to the Laboratory of Pediatric Oncohematology directed by Prof. Basso, in which he focused his interests in brain tumor biology with particular emphasis in unveiling the mechanisms by which brain tumor microenvironment (i.e. hypoxia) influences the activation of many developmental pathways,

including Bone Morphogenetic Proteins, Wnt and Notch signaling and how they cooperatively affect brain tumor biology, aggressiveness and phenotype. In this context, in the recent years L.P.'s group, developed a multilayer model of Glioblastoma in which they characterized the activation of the hypoxic signaling and its crosstalk with Glioblastoma cancer stem cells. L.P. is the PI of the Biology of CNS Tumors unit at the Woman and Child's health Department, Division of Pediatric Hematology, Oncology and Stem Cell Transplant of the Padua University, currently located at the Institute of Pediatric Research, where he recently obtained the position of Assistant Professor. The Consolidator IRP Grant granted to L.P. allowed him to study the mechanisms of therapy resistance in pediatric medulloblastoma tumor by setting up novel models of drug resistant medulloblastoma cells. This laid the foundations for the recent achievement of individual grants from the Rally Foundation for Childhood Cancer Research and CARIPARO Foundation, for a total amount of almost 500000 euro obtained in the last 5 years devoted to study the molecular basis of drug resistance in medulloblastoma and to exploit recently developed cellular models for identifying specific drugs against therapy-resistant medulloblastoma cells. L.P. scientific production is based on the publication of 55 original papers, being in 23 of them the first/co-first, last/co-last or corresponding author, with almost 1900 citations and an H-index of 24 (Scopus, January 2024).

Daniela Marazziti, CNR Senior Researcher; Scopus identifier: 7102674941; ORCID ID: 0000-0002-1582-9271. Dr. Marazziti had been trained as a molecular biologist at the European Molecular Biology Laboratory (EMBL, Heidelberg, Germany), where she also learned cell biology/biochemical analysis of membrane proteins. She has then developed and applied integrated approaches for mouse mutants design, production and functional validation, as specific *in vivo* models of human physiology/disease, thanks to her participation in leading EU-funded international Consortia (such as EUMORPHIA, EUMODIC, etc.). In addition, she is participating in the histopathology screening pipelines of the International Mouse Phenotyping Consortium (IMPC; mousephenotype.org). She is also expert in brain tumors development and progression and recently, she collaborates with Prof. Mammano in the production and characterization of syngeneic mouse model of glioblastoma, to study neuron-astrocyte network dysregulation *in vivo*, also using the glass cranial vault model (see Preliminary results). She has excellent expertise and track record and will independently design and carry on the planned animal model studies, from syngeneic mouse model production to *ex vivo* analyses and she will also support junior members of the research group.

Chiara Di Pietro, CNR Researcher; Scopus identifier: 7003914712; ORCID ID 0000-0002-2680-1821. Dr. Di Pietro has worked on the production and functional characterization of new mutant models of brain development and related disorders. In particular, she has concentrated her research interests on innovative mouse models of postnatal cerebellar development, acquiring in-depth knowledge in cellular and molecular biology, combined with the experience developed at the CNR, in the group of EMMA-Infrafrontier international infrastructure. She participated in the development of the histopathological screening pipelines of the International Mouse Phenotyping Consortium (IMPC; mousephenotype.org), for large-scale, integrated and standardized production, primary and secondary phenotyping of mutant mouse strains as *in vivo* models of human diseases. Over the last years she has also deepened her knowledge and application of the most advanced molecular and cellular imaging techniques, in particular through the use of confocal microscopy. As a senior member, she will independently perform planned experiments involving cell cultures upon viral infection and *ex vivo* analyses.