CURRICULUM VITAE

Name: **Roberto Spurio**;
Date and Place of birth: September 12, 1961 Forlì (Italy)
Current position: Researcher at the School of Biosciences and Veterinary Medicine of the University of Camerino (Italy). Sector BIO/18 Genetics.

Education: 1986 - Graduation (cum laude) in Biological Sciences, University of Camerino.
Title of dissertation: "Structure-function relationships in *E.coli* protein synthesis initiation factor IF3. Modification of Arginines by 2-3 butanedione".

Scientific experience:
Jan. 1985 -Dec.1988 Research fellow at the Max-Planck-Institut für Molekulare Genetik, Berlin, in the laboratory of Dr. C.L. Pon;
1989 -2000 Technical assistant in the Laboratory of Genetics, Department of Biology, University of Camerino, Italy;
June 1994 Organized and presented a two weeks practical course in molecular biology to undergraduate students in the Institute of Molecular Biology of the University of Witten, Witten/Herdecke, Germany;
Dec. 1999 Participated in the EMBO course "Genome sequencing and differential gene expression analysis" organized by W. Ansorge at the EMBL – Heidelberg-Germany;
Nov. 2008 Participated in the Course "Hands-on course in Mass Spectrometry for Proteomics" organized by J.L. Capelo-Martinez at the FCT - University of Lisbon-Portugal.
Since year 2000, Assistant Professor of Genetics at the Department of Biology, University of Camerino.

Visiting scientist in the following laboratories:
i) Max-Planck-Institut für Molekulare Genetik Berlin (Dr. C.L. Pon);
ii) Bijvoet Center for Biomolecular Research (Dr. R. Kaptein/Dr. R. Boelens) at the University of Utrecht (Utrecht, The Netherlands) for short term collaborations since 1995;
iii) Alfred-Wegener-Institut for Polar and Marine Research Bremerhaven (Dr. L. Medlin);
iv) Netherlands Cancer Institute (NKI, Amsterdam) in the frame of a Structural Biology Project (Dr. Anastassis Perrakis).

Research activities:
1. Structure-function relationships of prokaryotic translation initiation factors. Characterization of mutant forms of IF1, IF2 and IF3 obtained by site-directed as well as random mutagenesis approaches of protein engineering;
2. Determination of the 3D structure of bacterial protein synthesis initiation factors by means of NMR spectroscopy, in collaboration with the team working at the Bijvoet Center in Utrecht (NL);
3. *In vitro* translation directed by both model and natural mRNAs to test the role of mRNA initiation triplets different from the canonical AUG (e.g. AUU, GUG, UUG) in gene expression;
4. Study of the oligomerization properties of the nucleoid protein H-NS using *in vivo* two-hybrid assays and *in vitro* approaches based on EMSA and time-resolved footprinting techniques;
5. Design, construction and development of DNA macroarrays for the identification of microorganisms in freshwater samples.

6. Scientific supervisor of two EC funded projects (coordinated by Prof. Claudio Gualerzi at UNICAM):
- MicroPAD (years 2001-2004 5th Framework) 3 partners;
- MicroAQUA (years 2011-2014 7th Framework) 12 partners.

Academic Qualification

1. Organizer of the International Workshop "Detection of Microbial Biodiversity in Environmental Samples. A Molecular Ecology Workshop" (Camerino, Italy, 2005)
2. Organizer of the International Scientific Symposium "*Small Solutions for Big Water-Related Problems*" INNOVATIVE MICROARRAYS AND SMALL SENSORS TO COPE WITH WATER QUALITY AND FOOD SECURITY (Rome, October 2014)
3. Guest Editor of the Special Issue of the Journal '*International Journal of Environmental Research and Public Health*' published in 2015.
4. Peer reviewer of manuscripts for journals like: Nucleic Acids Research; EMBO Journal, Journal of Biological Chemistry; Journal of Microbiological Methods, Marine Ecology Progress Series.
5. Member of the Scientific Society A.G.I. (Associazione Genetica Italiana).
6. Production of more than 60 communications (Oral or Poster presentations) to National and International Congresses.
7. Member of the Scientific Committee of the PhD Course in Biology at the University of Camerino, since year 2003.

Scientific evaluation (Academic career started in year 2000):

Co-author of 46 publications in international journals, 2 reviews and 3 chapters in scientific books.
Average Impact factor: **4.6**
Number of Citations received: **1719**
H-Index: **20**

Tutoring:

1. Supervisor of 12 Master thesis at the University of Camerino.
2. Tutor and Supervisor of 10 PhD thesis at the University of Camerino.
3. External examiner on PhD thesis for the University of Wageningen (The Netherlands).

Funding:

1. National Coordinator of a PRIN (Protocol N.2005055897). Title: "DNA-binding properties of the bacterial nucleoid protein H-NS: molecular analysis focused on DNA recognition at the nucleation points". (2006)
2. Coordinator of a FAR project. Title: "Development of Apicoplast-targeting drugs: a possible new way to treat relevant infectious diseases". (2012)
3. Coordinator of one Working Unit and Scientific Manager of the project: "Strumenti per la valutazione dei microrganismi presenti in un campione d'acqua dolce: dal microscopio ottico alle analisi molecolari. Una ricerca che conduce alla produzione di strutture sintetiche prendendo come modello le stampanti 3D biologiche" financed by MIUR (Progetto Diffusione Scientifica, 2015).

4. Coordinator of a project funded by INSTRUCT, a network of European facilities for structural biology. Title: “Interaction of the bacterial structuring protein H-NS with fast, intermediate and slow DNA target sites at *VirF* promoter”. (PID: 1723). (2016)

Invited speaker:

1. International Congress BIT’s 7th World Gene Convention (Shanghai, China), 2016.

Talk given in Session 1-2: RNA Biology, Nucleic Acids, RNAi and mRNA.