CURRICULUM VITAE OF APPLICANT: Prof. Annalisa Pastore, AE

Degrees etc (including dates awarded)
Ph.D. 1987, Chemistry, University of Naples, Italy.
M.Sc. 1981, Chemistry, University of Naples, Italy.
Honours
Oct 2013 Elected Member of the Academia Europaea
Oct 2001 Elected EMBO Member.
May 2003 Honorary Professor at University College London, UK

Posts held
2013 – present Full Professor at King's College London
1997 – 2013 Team Leader, MRC NIMR, Mill Hill, London
1991 – 1997 Group leader at EMBL Heidelberg, Germany, in the Structures Program'
1988 – 1991 Staff scientist position at EMBL Heidelberg, Germany, in the Biocomputing Program.
1986 – 1987 Postdoctoral fellow at the Department of Biochemistry, University of Oxford, UK

Expertise: Structural biology, Biophysical techniques, NMR structure determination of proteins, Molecular Biology and Biochemistry, Structural and functional genomics, Bioinformatics and Computational methods, Enzymology.
Structures solved: **39** pdb entries
ORCID identification: 0000-0002-3047-654X

Other recognitions
- Chairperson in the evaluation committee of the Italian PRIN grants (2013).
- Included in AcademiaNet, a database of outstanding Women Scientists which can be accessed only upon nomination of an Institution. Nominated by EMBO (2013).
- Reviewer of ERC, HFSP and other National and International Grants
- Member of an International panels of scientific assessment
- Panel member of DFG assessments to decide on applications for high field (1.2 GHz) NMR spectrometers in Germany (2012-2014).
- Chairperson of the CCPN committee (2004-2007)
- Chief Editor of Frontiers in Biosciences and Open Systems Biology Journal
- Editorial board member of J. Biol. Chem., PlosOne, Medicinal Chemistry, Prion, ScienceJet, PeerJ, The Open Biochemistry Journal and The Open Spectroscopy Journal

Current fundings
2015-2018 Motor Neuron Disorder Association (MNDA) Understanding the aggregation properties of TBP43 £221,595
2015 National Ataxia Foundation **A new cellular model of Friedreich's ataxia** $35,000
2015-2018 BBSRC Grant **The molecular bases of stretch activation in muscle** £245,000
2014- 2017 MRC Research Grant **Understanding the mechanisms of neurodegeneration** £1,074,682
2014- 2016 Diabetes UK **The role of glycation on peptide aggregation** £148,564
2014- 2016 EU FP7 grant**.** The NGF system and its interplay with endocannabinoid signalling, from peripheral sensory terminals to the brain: new targets for the development of next generation drugs for neuropathic pain (Paincage) £267,290

AP has >220 research article and several reviews and commentaries (Number of Citations 10186, h index 58, i10-index 171 according to Google Scholar); some of the most relevant publications over the last five years are listed here:

(225) Ruggeri, F.S., Longo, G., Faggiano, S., E. Lipiec, S.E., Pastore, A., Dietler, G. (last co-authorship) (2015) Infrared nanospectroscopy characterization of oligomeric and fibrillar aggregates during amyloid formation. Nature Comm., 6:7831. doi: 10.1038/ncomms8831.

(224) Vannocci, T., Faggianelli, N. Zaccagnino, S., Della Rosa, I., Adinolfi, S., Pastore, A. (2015) A new cellular model to follow Friedreich's ataxia in a time-resolved way. Disease Models & Mechanisms 8, 711-9.

(222) Yan, R., Adinolfi, S., Pastore, A. (2015) Ferredoxin, in conjunction with NADPH and Ferredoxin-NADP reductase, transfers electrons to the complex IscS/IscU to promote iron-sulfur cluster assembly. BBA Chembiochem. 15,1682-6.

(221) Adrover, M., Howes, B.D., Iannuzzi, C., Smulevich, G., Pastore, A. (2015) Anatomy of an iron-sulfur cluster scaffold protein:Understanding the determinants of [2Fe2S] cluster stability on IscU. BBA 1853, 1448-1456.

(219) Sanfelice, D., de Simone, A., Cavalli, A., Faggiano, S., Vendruscolo, M., Pastore, A. (2014) Characterisation of the conformational fluctuations in the Josephin domain of ataxin-3. Biophys J. 107, 2932-40.

(207) Yan, R., Konarev, P.V. Iannuzzi, C., Adinolfi, A., Roche, B.., Kelly, G., Simon, L., Martin, S.R. Py, B., Barras, F., Svergun, D.I., Pastore, A. (2013) Ferredoxin competes with bacterial frataxin in binding to the desulfurase IscS. JBC 288, 24777-87.

(206) Menon, R., Nethisinghe, S., Faggiano, S., Rezaei, H., Pemble, S., Sweeney, M., Wood, N., Davis, M., Pastore*, A., Giunti*, P. (2013) The role of interruptions in polyQ in the pathology of SCA1.Plos Genetics Jul;9(7):e1003648 (co-corresponding authors).

(203) de Chiara, C., Rees, M., Menon, R.P., Pauwels, K., Laurence, C., Konarev, P.K., Svergun, D.I., Martin, S., Chen, Y.W., Pastore, A. (2013) Self-assembly and conformational heterogeneity of the AXH domain of ataxin-1: An unusual example of a chameleon fold. Biophys. J. 104, 1304-1310.

(200) Menon, R., Soong, D., de Chiara, C., Holt, MR, Anilkumar, M., Pastore, A. (2012) The importance of serine 776 in Ataxin-1 partner selection: A FRET Analysis. Sci. Reports 2, 919.

(194) Bridwell-Rabb, J., Iannuzzi, C., Pastore, A., and Barondeau, D.P. (2012) Effector Role Reversal during Evolution: The Case of Frataxin in FeS Cluster Biosynthesis. Biochemistry 51, 2506-2514.

(192) Adrover, M., Martorell, G., Martin, S., Urosev, D., Daura, X., Konarev, P, Svergun, D., Temussi, P.A., Pastore, A. (2012) The role of hydration in protein stability: comparison of the cold and heat unfolded states of Yfh1. J. Mol. Biol. 417, 413-424.

(191) Pauwels, K., Williams, T.L., Morris, K.L., Jonckheere, W., Vandersteen, A., Kelly, G., Schymkowitz, J., Rousseau, F., Pastore, A., Serpell, L.C., Broersen, K. (2012) The structural basis for increased toxicity of pathological $A\beta_{42}$:$A\beta_{40}$ ratios in Alzheimer's disease. J Biol Chem. 287, 5650-5660

(190) Esposito, V., Musi, V., de Chiara, C., Veggi, D., Serruto, D., Scarselli, M.. Kelly, G., Pizza, M., Pastore, A. (2011) Structure of the C-terminal domain of NHBA, one of the main antigens of a novel vaccine against *N. meningitides.* J. Biol. Chem. 286, 41767-41775.

(184) Masino, L., Nicastro, G., de Simone, A., Calder, L., Molloy, J., Pastore, (2011) The Josephin domain determines the morphological and mechanical properties of ataxin-3 fibrils. Biophys. J. 100, 2033-2042.

(180) Adrover, M., Esposito, V., Martorell, G., Pastore, A., Temussi, P.A. (2010) Understanding cold denaturation: the case study of Yfh1. JACS 132, 16240-16246.

(178) Prischi, F., Konarev, P.V., Iannuzzi, C., Pastore, C., Adinolfi, S., Martin, S.R., Svergun, D.I., Pastore, A. (2010) Structural bases for the interaction of frataxin with the central components of iron-sulfur cluster assembly. Nature Communications 1, 95.

(177) Masino, L., Nicastro, G., Calder, L., Vendruscolo, M., Pastore, A. (2010) Functional Interactions as a survival strategy against abnormal aggregation. Faseb J. 25, 45-54.

(172) Adrover, M., Pauwels, K., Prigent, S., de Chiara, C., Xu, Z., Chapuis, C., Pastore*, A., Rezaei*, H. (2010) Prion fibrillization is mediated by a native H2H3 structural element. J. of Biol. Chem. 285, 21004-21012. (co-correspondent authors).

(168) DiBella, D., Lazzaro,F., Brusco, A., Plumari, M., Battaglia, G. Pastore, A., Finardi, A., Cagnoli, C., Tempia, F., Sacco, T., Boda, E., Brussino, A, Bonn, F., Castellotti, B., Baratta, S., Mariotti, C., Gellera, C., Fracasso, V., Plevani, P., DiDonato, S., Langer, T., Muzi-Falconi, M., Taroni, F. (2010) *AFG3L2* mutations cause dominant ataxia SCA28 and reveal an essential role for the mitochondrial AFG3L2 metalloprotease complex in the cerebellum. Nature Genetics 42,313-321.

Recent Reviews

(36) Pastore, A., Wei G. (2015) Editorial overview: Folding and binding: Old concepts, new ideas, novel insights. Curr Opin Struct Biol. 30:iv-vi. (I acted as invited co-editor of the whole issue).

(33) Gershenson, A., Gierasch, L.M., Pastore, A., Radford, S.E. (2014) Energy landscapes of functional proteins are inherently risky. Nat Chem Biol. 10, 884-91.

(30) de Chiara, C. and Pastore, A. (2014) Kaleidoscopic protein-protein interactions in the life and death of ataxin-1: New strategies against protein aggregation. Trends in Neurosciences