

## Curriculum Vitae

Name: Giovanna Serino

Work address: Laboratories for the Functional Genomics and Proteomics of Model Systems, La Sapienza University, via dei Sardi 70, 00185 Rome, Italy

Email: giovanna.serino@uniroma1.it

### Education

February 1993 Laurea *cum laude* in Biological Sciences, “La Sapienza” University, Rome, Italy

May 2002 PhD in Molecular, Cellular and Developmental Biology, Yale University, New Haven, CT, USA

### Fellowships and Awards

1993-1995 Fellowship, National Research Council, Rome, Italy

1995-1996 Fellowship, Pasteur Institute- Cenci Bolognetti Foundation, Rome, Italy

1996-1998 Joseph Cullman Fellowship for Excellence in Research, Yale University, USA

1998-2000 Scholarship for research abroad, Pasteur Institute-Cenci Bolognetti Foundation, Rome, Italy

2002 John Spangler Nicholas Prize for outstanding doctoral candidate in Biology

2002-2004 Long Term Fellowship, European Molecular Biology Organization

2002 Grant for Young Researchers, “La Sapienza University”, Rome

2003-present Grant for Returning Scientists from abroad, Italian Ministry of Research

2005 Short-Term Fellowship for Foreign Researchers, Japanese Society for the Promotion of Science

### Scientific Experience

1990-1993 Undergraduate training in the laboratory of Prof. Paolo Costantino, “La Sapienza” University, Rome

1993-1996 Research associate at the Department of Genetics and Molecular Biology (Prof. Paolo Costantino), “La Sapienza” University, Rome

1996-2002 Graduate student in the laboratory of Prof. Xing-Wang Deng, Yale University, USA

2002-2003 Post-doctoral fellow in the laboratory of Prof. Paolo Costantino, “La Sapienza” University, Rome

2003-present Independent Group leader, Laboratories of Functional Genomics and Proteomics of Model Systems, “La Sapienza” University, Rome

### **Teaching Experience**

1996 Teaching of 1 course, “Introduction to Biology”, Yale University, USA

1998-1999 Teaching of 2 courses, “Laboratory of Nucleic Acids”, Yale University, USA

2000 Teaching of 1 course, “Advanced Techniques in Molecular Biology”, Yale University, USA

2002-2006 Supervision of five senior Biology and Biotechnology students (MS equivalent). Supervision of three junior thesis of Biology and Biotechnology students, “La Sapienza University”, Rome

2005-present Preparing, coordinating and teaching of a course on Plant Biotechnology for the Master in Biotechnology, “La Sapienza University”, Rome

2006-present Preparing and teaching of a course, “Molecular Biology of Plant Development”, “La Sapienza University”, Rome

## Publications

- 1) Serino G, Clerot D, Brevet J, Costantino P and Cardarelli M. (1994). *Rol* genes of *Agrobacterium rhizogenes* cucumopine strain: sequence, effects, and pattern of expression. *Plant Mol. Biol.* 26: 415-422
- 2) Bellincampi D, Cardarelli M, Zaghi D, Serino G, Salvi G, Gatz C, Cervone F, Altamura MM, Costantino P and De Lorenzo G. (1996). Oligogalacturonides prevent rhizogenesis in *rolB* transformed tobacco explants by inhibiting auxin-induced expression of the *rolB* gene. *Plant Cell* 8: 477-487
- 3) Cardarelli M., Serino G., Campanella, L., Ercole P., de Cicco Nardone, F., Alesiani, Q. and Rosiello, F. (1997). Antimitotic effects of usnic acid on different biological systems. *Cell. Mol. Life Sci.* 53:667-672
- 4) Wei, N., Tsuge, T., Serino, G., Dohmae, N., Takio, K., Matsui, M. and Deng, X. W. (1998). The COP9 complex is conserved between plants and mammals and is related to the 26S proteasome regulatory complex. *Curr Biol.* 8: 919-922
- 5) Serino, G., Tsuge, T., Kwok, S.F., Matsui, M., Wei, W. and Deng, X.W. (1999). *Arabidopsis cop8* and *fus4* mutations define the same locus that encodes subunit 4 of the COP9 signalosome. *Plant Cell* 11:1967-1979
- 6) Peng, Z., Staub, J.M., Serino, G., Kwok, S.F., Kurepa, J., Bruce, B.D., Vierstra, R., Wei, N. and Deng, X.W. (2001). The cellular level of PR500, a protein complex related to the 19S Regulatory Particle of the proteasome, is regulated in response to stress in plants. *Mol. Biol. Cell.* 12:383-392
- 7) Lyapina, S., Cope, G., Shevchenko, A., Serino, G., Tsuge, T., Zhou, C., Wolf, D.A., Wei, N. and Deshaies, R.J. (2001) Promotion of NEDD8-CUL1 conjugate cleavage by COP9 signalosome. *Science* 292: 1382-1385
- 8) Schwechheimer, C.\*, Serino, G.\*, Schwechheimer, C.\*, Callis, J., Crosby, W.L., Lyapina, S., Deshaies, R.J., Gray, W.M., Estelle, M. and Deng, X.W. (2001). Interaction of the COP9 signalosome with the E3 ubiquitin ligase SCF<sup>TIR1</sup> in mediating auxin-response. *Science*, 292:1379-1382 (\* co-first authorship)
- 9) Peng, Z., Serino G and Deng, XW (2001). Molecular characterization of subunit 6 of the COP9 signalosome and its role in multifaceted development processes in *Arabidopsis*. *Plant Cell* 13, 2393-2407
- 10) Peng, Z., Serino G and Deng, XW (2001). A role of *Arabidopsis* COP9 signalosome in multifaceted developmental processes revealed by the characterization of its subunit 3. *Development* 128, 4277-4288
- 11) Wang, X., Kang, D., Feng, S., Serino, G., Schwechheimer, C. and Wei, N. (2002). CSN1 N-terminal-dependent activity is required for *Arabidopsis* development But Not for Rub1/Nedd8 deconjugation of cullins: a structure-function study of CSN1 subunit of COP9 Signalosome. *Mol Biol Cell.* 13: 646-655

- 12) Serino, G. and Deng, X.-W. (2002) Protein Coimmunoprecipitation, 233-237. in Weigel, D., and Glazebrook, J. *Arabidopsis-A Laboratory Manual*. Cold Spring Harbor Laboratory Press, Cold Spring Harbor
- 13) Liu, Y, Schiff, M, Serino, G, Deng XW, Dinesh-Kumar SP (2002). Role of SCF ubiquitin-ligase and the COP9 signalosome in the N gene-mediated resistance response to Tobacco mosaic virus. *Plant Cell* 14:1483-1496
- 14) Schwechheimer C, Serino G, Deng XW (2002). Ubiquitin ligase-mediated processes require COP9 signalosome and AXR1 function. *Plant Cell* 14:2553-2563
- 15) Serino G, Su H, Peng Z, Tsuge T, Wei N, Gu H, Deng XW (2003). Characterization of the last subunit of the Arabidopsis COP9 signalosome: implications for the overall structure and origin of the complex. *Plant Cell* 15:719-31
- 16) Serino G, Deng XW (2003). The COP9 signalosome: regulating plant development through the control of proteolysis. *Annu Rev Plant Biol.* 54:165-82
- 17) Figueroa P, Gusmaroli G, Serino G, Ma L, Shen Y, Feng S, Bostick M, Callis J, Hellmann H, Estelle M and Deng XW (2005). Arabidopsis has two redundant Cullin3 proteins that are essential for embryo development and that interact with RBX1 and BTB proteins to form multisubunit E3 ubiquitin ligase complexes in vivo. *Plant Cell* 17: 1180-1195
- 18) Cecchetti V, Altamura MM, Serino G, Pomponi M, Falasca G, Costantino P, Cardarelli M. *ROXI*, a gene induced by *rolB*, is involved in procambial cell proliferation and xylem differentiation in tobacco stamen. *Plant Journal*, *in press*
- 19) Gusmaroli G., Figueroa P., Serino G., and Deng XW (2006) "Role of the MPN subunits in COP9 signalosome assembly and activity, and their regulatory interaction with Cullin3-based E3 ligases" *Plant cell*, *in press*
- 20) Iafrate S., Moubayidin L., Perilli S., Tsuge T., Heyl A., Deng XW., Costantino P., Serino G. Regulation by the COP9 SIGNALOSOME of AtPIC2, a novel F-box protein from *Arabidopsis thaliana*. *in preparation*