

CURRICULUM VITAE

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A. Personal Data

NAME Andreas Roussis

BIRTHDATE 19 January 1965

BIRTHPLACE Athens, GR

MARITAL STATUS Married, one child

MILITARY SERVICE Hellenic Armed Forces, Supply and Transportation Corps

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B. Undergraduate Studies

BSc in Biology (major in molecular biology), Aristotelian University of Thessaloniki, Department of Biology, Thessaloniki, Greece. (1989)

C. Graduate Studies

PhD, (plant molecular biology), Agricultural University of Athens, Department of Agricultural Biology and Biotechnology, Athens, Greece. (1992)

D. Positions – Employment

National and Kapodistrian University of Athens Assistant Professor (Molecular Plant Physiology) Dept. of Biology 03/11/2009 – today

Utrecht University, Dept. of Molecular Cell Architecture, The Netherlands, Researcher. (2009)

αRGENX bv. Rotterdam, The Netherlands, Consultant. (2009)

Technological Educational Institute of Athens, Department of Conservation of Antiquities and Works of Art, Scientific Associate (Assistant Prof. level) (2005-2008).

Agricultural University of Athens, Department of Agricultural Biology & Biotechnology, Athens, Greece, Lecturer (Π.Δ. 407/80). (2006)

Leiden University Medical Center, Center for Human and Clinical Genetics, The Netherlands, Senior researcher. (2002-2005)

Institute of Molecular Plant Sciences, Clusius Laboratory, Leiden University, The Netherlands, Post-Doctoral Researcher. (1999-2002)

Laboratory of Gene Expression, Aarhus University, Denmark, Research Assist. Professor / Forsikningsadjunct. (1997-1999)

Laboratory of Gene Expression, Aarhus University, Denmark, Ερευνητής (Researcher). (1996-1997)

Institute of Molecular Biology, Agricultural University of Wageningen, The Netherlands, Visiting Researcher (1992) / (1993).

Agricultural University of Athens, Department of Agricultural Biology & Biotechnology, Athens, Greece, Post Graduate researcher. (1992-1996)

E. Member of Scientific Societies

The Greek Society for Biological Sciences

The Hellenic Botanical Society

Hellenic Society for Computational Biology and Bioinformatics

The Federation of European Societies of Plant Physiologists

F. Research Activities

Selenium binding proteins and their role in abiotic stress

Development of proteomics tools based on single domain antibodies to study plant physiological aspects

G. Teaching Subjects

Plant physiology

Molecular plant development

Plant metabolism

H. Scientific publications

(i) Dissertations

Roussis Andreas. Analysis of the regulation of nodulin gene expression in soybean and phaseolus. **1996.** PhD Thesis,, Agricultural University of Athens, Department of Agricultural Biology & Biotechnology, Athens, Greece.

(ii) Publications in international peer-reviewed journals

Gulyaev A.P. and **A. Roussis.** **2007.** Identification of conserved secondary structures and expansion segments in enod40 RNAs reveals new enod40 homologues in plants. **Nucleic Acids Research**, 35(9) pp 3144-3152.

Agalou A., H.P. Spaink & **Roussis A.** 2006. Novel interaction of selenium-binding protein with glyceraldehydes-3-phosphate dehydrogenase and fructose-biphosphate aldolase of *Arabidopsis thaliana*. **Functional Plant Biology**, 33(9), pp847-856.

Verheesen P., **Roussis A.**, de Haard H., Groot A., Stam J., den Dunnen J., Frants R., Verrips T., & S. van der Maarel. 2006. Reliable and controllable antibody fragment selections from Camelid non-immune libraries for target validation. **Biochimica et Biophysica Acta – Proteins & Proteomics**, 1764, pp1307-1319.

Agalou A., **A. Roussis** & Spaink H.P. 2005. The *Arabidopsis* Selenium Binding Protein confers tolerance to toxic levels of selenium. **Functional Plant Biology**, 32(10), pp881-890.

Grønlund M., **Roussis A.**, Fletmetakis E., Quaedvlieg N.E.M., Schlaman H.R.M., Umehara Y., Katinakis P., Stougaard J. & H.P. Spaink. 2005. Analysis of Promoter Activity of the Early Nodulin *Enod40* in *Lotus japonicus*. **Molecular Plant Microbe Interactions** 18(5), pp414-427.

Huang Y., Verheesen P., **Roussis A.**, Frankhuizen W., Ginjaar I., Haldane F., Laval S., Anderson L.B.V., Verrips T., Frants R.R., de Haard H., Bushby K., den Dunnen J. and Silvère M. van der Maarel. 2005. Protein studies in dysferlinopathy patients using llama-derived antibody fragments selected by phage display. **European Journal of Human Genetics** 13, pp721-730.

Andersen S.U., Cvitanich C., Hougaard A., **Roussis A.**, Grønlund M., Jensen B.A., Frøkjær L.A. & E.Ø. Jensen. 2003. The Glucocorticoid-Inducible GVG System Causes Severe Growth Defects in Both Root and Shoot of the Model Legume *Lotus japonicus*. **Molecular Plant Microbe Interactions** 16, pp 1069-1076.

Girard G., **Roussis A.**, Gulyaev A.P., Pleij C.W.A., and Herman H.P. Spaink 2003. Structural motifs in the RNA encoded by the early nodulation gene *enod40* of soybean. **Nucleic Acids Research** 31, pp 5003-50015.

Grønlund M., Gustafsen C., **Roussis A.**, Jensen D., Nielsen L.P., Marcker K.A., & E.Ø. Jensen. 2003. The *Lotus japonicus ndx* gene family is involved in nodule function and maintenance. **Plant Molecular Biology** 52, pp 1-14.

Roussis A., Fletmetakis E., Dimou M., Kavroulakis N., Venieraki A., Aivalakis G., & P. Katinakis. 2003. Nodulin PvNOD33, a putative phosphatase whose expression is induced during *Phaseolus vulgaris* nodule development. **Plant Physiology and Biochemistry** 41, pp 719-725.

Fletmetakis E., Agalou A., Kavroulakis N., Dimou M., Martsikovskaya A., Slater A., Spaink H.P., **Roussis A.**, & P. Katinakis. 2002. *Lotus japonicus* gene *Ljsbp* is highly conserved among plants and animals and encodes a homologue to the mammalian selenium-binding proteins. **Molecular Plant Microbe Interactions** 15 pp 313-322.

Fletmetakis E., Kavroulakis N., Quaedvlieg N., Spaink H.P., Dimou M., **Roussis A.** & P. Katinakis. 2000. *Lotus japonicus* contains two distinct ENOD40 genes which are expressed in

symbiotic and non-symbiotic tissues including embryos. **Molecular Plant Microbe Interactions**, 13 pp 987-994.

Schauser L., **Roussis A.**, Stiller J., & J. Stougaard. **1999**. A plant regulator controlling development of symbiotic root nodules. **Nature** 402 pp 191-195.

Roussis A., Papadopoulou K., & P. Katinakis. **1997**. NOD3, a novel late nodulin gene from soybean is expressed in the infected cells and the nodule parenchyma. **The Journal of Experimental Botany** 48 pp 1011-1017.

Papadopoulou K., **Roussis A.**, & P. Katinakis. **1996**. Phaseolus ENOD40 gene is involved in symbiotic and non-symbiotic organogenetic processes: Expression during nodule and lateral root development. **Plant Molecular Biology** 30 pp 403-417.

Papadelli M., **Roussis A.**, Papadopoulou K., Venieraki A., Chatzipavlidis I., Katinakis P. & C. Balis **1996**. Biochemical and molecular characterization of an *Azotobacter vinelandii* strain with respect to its ability to grow and fix nitrogen in olive mill wastewater. **International Biodeterioration and Biodegradation**, 38 (3-4) pp 179-181.

Roussis A., van de Sande K., Papadopoulou K., Drenth J., Franssen H., Bisseling T. & P. Katinakis. **1995**. Characterisation of the soybean gene pGmENOD40-2. **The Journal of Experimental Botany** 46 pp 719.

Papadopoulou K., **Roussis A.**, Kuin H. & P. Katinakis. **1995**. Expression pattern of uricase II gene in Phaseolus. **Experientia** 51, pp 90-94.

Economou A., **Roussis A.**, Millionsi D. and P. Katinakis. **1989**. Patterns of protein synthesis in the moderately halophilic bacterium *Deleya halophila* in response to sudden changes in external salinity. **FEMS Microbiology Ecology** 62, pp 103-110.

(iii) **Book chapters**

Spaank, H. P., C. P. Bras, M. Grønlund, P. van Spronsen, J. W. Kijne, H. R. M. Schlaman, **A. Roussis**, S. E. Wijting, J. Stougaard, E. Flemetakis, and P. Katinakis. **2002**. Responses of *Lotus japonicus* to Nod Factors, p. 148-152. In: T. M. Finan, M. R. O'Brian, D. B. Layzell, J. K. Vessey, and W. Newton (eds.), Nitrogen fixation: global perspectives. CABI Publishing, Wallingford, UK.

Schauser L., **Roussis A.**, Cervera J.H. & J. Stougaard. **2000**. Nin, a developmental regulator of root nodule initiation in *Lotus japonicus*. In "Nitrogen Fixation: from molecules to crop productivity", Pedrosa F.O., Hungria M., Yates M.G. and W.E. Newton (eds). Kluwer Academic Publishers, pp 329.

Spaank, H. P., Schlaman, H. R. M., Pacios Bras, C., **Roussis, A.**, Stougaard, J., and Stuurman, N. **2000**. The use of GFP to study factors involved in the *Lotus japonicus* symbiosis, p. 219-222. In: F. O. Pedrosa, M. Hungria, M. G. Yates, and W. E. Newton (eds.), Nitrogen fixation: from molecules to crop productivity. Kluwer Acad. Pub., Dordrecht.

Schauser L., **Roussis A.**, Sandal N., Krussel L., Herrera-Cervera J., Lorite-Ortega M.J., Nielsen A. & J. Stougaard. **2000**. Tagging of genes controlling root nodule development in *Lotus japonicus*. *Biology of Plant Microbe Interactions* vol. 2, De Wit P.J.G.M., Bisseling T. & Stiekema W. (eds). ISMPMI, St. Paul, Minnesota, USA, pp 50-52.

Grønlund M., Agalou A., Rubio M.C., Lamers G.E.M., **Roussis A.** and H.P. Spaink. **2004**. Embedding of *Lotus japonicus* root and nodule tissue in plastic (BMM): its use in immunocytochemistry and in situ RNA::RNA hybridisation studies. In: *Lotus japonicus Handbook. in press*

Roussis A. & E. Ø. Jensen. **1998**. Detection of rare transcripts (Course Manual). 3rd Nordic Research (NORFA) Course in Plant Molecular Biology: "Regulation of Plant Gene Expression: Approaches and Methods", Helsinki, Finland.

Katinakis P., Papadopoulou K. & **A. Roussis**. **1994**. Nodulin genes. In *Reur Technical Series 32, Cotton Biotechnology, Food and Agriculture Organization of the United Nations (FAO)*, M. C. Peeters (ed), pp. 75-78.

Papadopoulou, K., **Roussis A.**, and P. Katinakis. **1993**. Cytology of bacterial and the plant cell, p. 11-43. In: P. Katinakis (ed.), *Molecular Analysis of Plant-Microbe Interactions*. EU-NECTAR, Montpellier, France.

Roussis, A., K. Papadopoulou, and P. Katinakis. **1993**. Control of gene expression in prokaryotes, p. 47-70. In: P. Katinakis (ed.), *Molecular Analysis of Plant-Microbe Interactions*. EU-NECTAR, Montpellier, France.

Roussis, A., K. Papadopoulou, and P. Katinakis. **1993**. Control of gene expression in eukaryotes, p. 71-100. In: P. Katinakis (ed.), *Molecular Analysis of Plant-Microbe Interactions*. EU-NECTAR, Montpellier, France.

Papadopoulou, K., **Roussis A.**, and P. Katinakis. **1993**. Basic immunochemistry and molecular techniques to study plant-bacterial interaction, In: P. Katinakis (ed.), *Molecular Analysis of Plant-Microbe Interactions*. EU-NECTAR, Montpellier, France.

(iv) Meetings and conferences

A. Agalou, E. Salas-Vidal, Xi Cheng, J. van den Oever, **A. Roussis** and H. P. Spaink. Study of the Selenium Binding Protein in Zebrafish. **2005**. 4th European Zebrafish Genetics and Developmant Meeting, Dresden, Germany, 13th-16th July.

S. van der Maarel, P. Verheesen, **A. Roussis**, Y. Huang, S. van Koningsbruggen, J. den Dunnen, P. Frants, H. de Haard and T. Verrips. **2004**. Heavy-chain antibody fragments for proteomic applications in muscular dystrophies. *New Directions in Biology and Disease of Skeletal Muscle*. Paradise Point Resort, San Diego, California, USA, 25th-27th January.

Roussis A., Schlaman H.R.M., Stougaard J. & Herman P. Spaink .**2000**. A promoter trap approach in *Lotus japonicus*. Molecular Genetics of Model Legumes: Impact for Legume Biology and Breeding, John Innes Centre Norwich, UK, 24th-28th June, pp 108.

Grønlund M., **Roussis A.**, Schlaman H., Quaedvlieg N. & H. Spaink. **2000**. The use of reporter genes to study molecular responses during the rhizobia-legume interaction. 3rd International Congress on Symbiosis, 13th-19th August, Philipps-Universität Marburg, Germany, Weber H.C., Imhof S. & Zeuske D. (eds), pp 80.

Spaink H., Schlaman H. R. M., **Roussis A.**, Grønlund M., Diaz C., Pacios Bras C., Wijting S., Stuurman N. & J. Stougaard. **2000**. Analysis of Nod factor function using reporter gene constructs in *Lotus japonicus*. Molecular Genetics of Model Legumes: Impact for Legume Biology and Breeding, John Innes Centre Norwich, UK, 24th-28th June, pp 60.

Grønlund M., Jørgensen J.E., Nielsen L. P., **Roussis A.**, Marcker K. A. & E. Østergaard Jensen. **2000**. Down-regulation of the homeobox gene *Ljndx*, affects nodule development and maintenance in *Lotus japonicus*. Molecular Genetics of Model Legumes: Impact for Legume Biology and Breeding, John Innes Centre Norwich, UK, 24th-28th June, pp 83.

Roussis A., Schauer L. & J. Stougaard. **1999**. Towards a molecular and genetic dissection of root nodule development. Hellenic Biochemical and Biophysical society, Athens, Greece.

Schauer L., **Roussis A.**, Nielsen A. & J. Stougaard. **1999**. Genetic dissection of root nodule development in the legume *Lotus japonicus*. Keystone Symposium on Molecular and Cellular Biology, "Interactions and Intersections in Plant Signaling Pathways", pp.45 (228), February 8-14, Coeur d'Alene, Idaho, USA.

Hansen A.C., Grønlund M., Jørgensen J.E., Cvitanich C., Johansson C., **Roussis A.**, Marcker K.A. & E. Ø. Jensen. **1998**. Characterization of trans-acting factors regulating nodulin gene expression. 3rd European Nitrogen Fixation Conference, September 20-24, De Blije Werelt Lunteren, The Netherlands.

Roussis A., Esbensen P., Pallisgaard N., Marcker K.A. & E. Ø. Jensen. **1998**. Antisense inhibition of the leghemoglobin trans-acting factor LBF1 in *Lotus japonicus*. 20th Congress of the Hellenic Society of Biological Sciences, May 28-31, Samos, Greece.

Roussis A., Larsen K., Schauer L., Pajuelo E. & J. Stougaard. **1998**. Ac/Ds and T-DNA tagging in *Lotus japonicus*. 20th Congress of the Hellenic Society of Biological Sciences, May 28-31, Samos, Greece.

Jørgensen J.E., Grønlund M., Chemnitz Hansen A., **Roussis A.**, Christiansen H., Pallisgaard N., Larsen K., Marcker K.A. & E. Ø. Jensen. **1997**. Transcription factors functioning in nodule development. Phytosphere '97, Plant Technology Transfer Events, Dublin, Ireland.

Roussis A., Esbensen P., Pallisgaard N., Marcker K.A. & E. Ø. Jensen. **1997**. LBF-1: A putative trans-active factor of leghemoglobin genes. 11th International Congress on Nitrogen Fixation, July 20-25, Institute Pasteur, Paris, France, 06.37, pp 88.

Flemetakis M., Kavroulakis N., Papadopoulou K., **Roussis A.**, Konstandi O., Kenoutis C & P. Katinakis. **1996**. Expression of the early nodulin ENOD2 and the late nodulin NOD30 in *Phaseolus vulgaris*. Hellenic Botanical Society, Cyprus.

Roussis A., Papadopoulou K. & P. Katinakis. **1996**. Expression pattern of NOD3 during nodule development in soybean. Hellenic Botanical Society, Cyprus.

Roussis A. & P. Katinakis **1994**. Characterization of the Enod40 gene in soybean. Hellenic Biochemical & Biophysical Society Newsletter, No 35, pp. 35.

Roussis A., Papadopoulou K., Flemetakis M., Kavroulakis N. & P. Katinakis. **1994**. Structure and function of nodulins in soybean and *Phaseolus*. Hellenic Society of Biological Sciences Newsletter, pp. 9.55.

Roussis A. & P. Katinakis. **1993**. Peribacteroid membrane proteins in soybean. Hellenic Society of Biological Sciences Newsletter, pp 341.

Papadopoulou, **Roussis A.** & P. Katinakis. **1992**. The ENOD40 gene in legumes.