

## **Dominique ROLIN**

PhD in Biology and Plant Physiology -  
Professor at Bordeaux University  
Date of Birth: July 11, 1958



### **Fruit Biology and Pathology Unit (UMR 1332)**

#### **Bordeaux University - INRA**

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## **PROFESSIONAL EXPERIENCE:**

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2014- Professor - Bordeaux University (France)  
1994- 2013 Professor - *Segalen* Bordeaux University (France)  
1992-1994 Associate Professor - Rennes University (France)  
1991-1992: Commercial Engineer - SERONO France  
1987-1991: Post-Doctoral Position - Plant and Soil Biophysics Unit, US Department of Agriculture, (Philadelphia, USA).  
1984-1987: Ph. D. Student - Rennes I University (France)  
1985-1986: Teaching Assistant at Rennes University (France)  
1983-1984: High School Professor - Lycée Lyautey in Casablanca (Morocco).

## **SCIENTIFIC and ADMINISTRATIVE DUTIES:**

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1994 -2007 Member of the Scientific Committee - *Segalen* Bordeaux University (France)  
1998 - 2010 Member of the Teaching Committee - *Segalen* Bordeaux University (France)  
1998 - 2002 Project leader for the International Relation Board – *Segalen* Bordeaux University  
2002 - 2006 Scientific Committee member of the Plant Biology Department (INRA)  
2004 – 2007 Member of the National Committee of the French Universities (Physiology section)  
2004 - 2006 Director of the Physiology and Biotechnology Unit (INRA-UB1-UB2)  
2002 - 2010 Project leader of the « Metabolism Regulation Team »  
2007 - 2010 Director of the Fruit Biology Unit (INRA-UB1-UB2)  
2007 - 2011 President of the National Committee of the French Universities (Physiology section)  
2005 - 2015 Executive Committee member of the French Network of Metabolomics and Fluxomics and President since 2009  
2011 - 2015 Scientific Committee member of the Plant Biology Department (INRA)  
2008 - Present Director of Bordeaux Genomic Functional Center (<http://www.cgfb.u-bordeaux2.fr/en> )  
2011 - Present President of the INRA CSS Ecology, Genetics and Plant Integrative Biology  
2012 – Present Director of the National Infrastructure for metabolomics (MetaboHUB) (<http://www.metabohub.fr/index.php?lang=en&Itemid=473> )

## **EDUCATION:**

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1980: Bachelor in Science major in Biology and Plant Physiology (Nancy University, France)  
1981: Master in Science major in Biology, Organisms and Populations (Nancy University, France)  
1982: Postgraduate degree in Biology and Plant Physiology (Nancy University, France).  
1987: Ph.D in Biology and Plant Physiology (Rennes University, France)  
1993: Habilitation à Diriger des Recherches (Rennes University, France)

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## Input on the structure and operations of scientific institutions.

D. Rolin is the coordinator of the French MetaboHUB<sup>1</sup> proposal and has contractual responsibility for the project, its overall management, organization and control. D. Rolin has been Professor at Bordeaux University since 1994 and has recognized expertise in the fields of NMR spectroscopy, plant and fruit biology, metabolism, metabolomics and fluxomics. D. Rolin is also widely involved in the structuring of research efforts in the emerging field of functional genomics especially in metabolomics. He is heading « Bordeaux Functional Genomics Centre<sup>2</sup> » a federation of seven technological platforms (100 permanent staff in 2015), dedicated to the study of living organisms at cellular and molecular scales in the French Aquitaine Region. In 2002, he has set up and led the Metabolome Facility of Bordeaux (BMP) until 2008, which can be considered as a pioneer in plant metabolomics in France. D. Rolin is also deeply involved in the promotion of Metabolomics & Fluxomics in France as co-founder, treasurer (2007-2010) and President of the French Metabolomics and Fluxomics Network (2010-2015; RFMF<sup>3</sup>, a French Scientific Society created in 2005 that aims at the promotion of Metabolomics & Fluxomics in France). D. Rolin was co-organizer of nine national metabolomics congresses and two Scientific School for Metabolomics organized by RFMF at Montpellier in 2009 and in Nice in 2014.

### Publication list (2010-2015)

1. Salek, R., Neumann, S., Schober, D., Hummel, J., Billiau, K., Kopka, J., Correa, E., Reijmers, T., Rosato, A., Tenori, L., Turano, P., Marin, S., Deborde, C., Jacob, D., Rolin, D., Dartigues, B., Conesa, P., Haug, K., Rocca-Serra, P., O'hagan, S., Hao, J., Vliet, M. V., Sysi-Aho, M., Ludwig, C., Bouwman, J., Cascante, M., Ebbels, T., Griffin, J. L., Moing, A., Nikolski, M., Oresic, M., Sansone, S.-A., Viant, M. R., Goodacre, R., Günther, U. L., Hankemeier, T., Luchinat, C., Walther, D., Steinbeck, C. (2015). . Coordination Of Standards In Metabolomics (Cosmos): Facilitating Integrated Metabolomics Data Access. **Metabolomics** Volume 11, Issue 6, Pp 1587-1597.
2. Liu R E, How-Kit A, Stammitti L, Teyssier E, Rolin D, Bertran A, Halle S, Liu M, Kong J, Wu C, Hodgman C, Degraeve-Guibault C, Chapman N, Maucourt M, Tost J, Bouzayen M, Hong Y, Seymour G B, Giovannoni J, Gallusci P 2015 A Demeter Like Protein Governs Tomato Fruit Ripening; **Proc Nat Acad Sciences**, Vol 112 ; 24, Pp 10804-10809 ; Doi10.1073/Pnas.1503362112
3. Bénard C., Bernillon S., Biais B., Osorio S., Maucourt M., Ballias P., Deborde C., Colombié S., Cabasson C., Jacob D., Vercambre G., Gautier H., Rolin D., Génard M., Fernie A., Gibon Y. And Moing A. 2015 Metabolomic Profiling In Tomato Reveals Diel Compositional Changes In Fruit Affected By Source–Sink Relationships. **J Exp. Bot.** 66(11): 3391–3404.
4. Roessner U., Rolin D., Van Rijswijk M., Hall R., Hankemeier T., Simmons T. 2015 Metabolomics Society's International Affiliations. **Metabolomics** 11: 501-502
5. Chenw., Kong J., Qin C., Yu S., Tan J., Chen Y., Wu C., Wang H., Shi Y., Li C., Li B., Zhang P., Wang Y., Lai T., Yu Z., Zhang X., Shi N., Wang H., Osman T., Liu Y., Manning K., Jackson K., Rolin D., Zhong S., Seymour G. B., Gallusci P., Hong Y 2015 Requirement Of *Chromomethylase3* For Somatic Inheritance Of The Spontaneous Tomato Epimutation *Colourless Non-Ripening*. **Scientific Reports** 2, 9192
6. Rolin D., Teyssier E., Hong Y2.And Gallusci P. 2015 Tomato Fruit Quality Improvement Facing The Functional Genomics Revolution. In P. Poltronieri And Yiguo Hong, Eds, Applied Plant

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<sup>1</sup> <http://www.metabohub.fr/en/>

<sup>2</sup> <http://www.cgfb.u-bordeaux2.fr/en>

<sup>3</sup> [https://www.bordeaux.inra.fr/ifr103/reseau\\_metabolome/accueil.htm](https://www.bordeaux.inra.fr/ifr103/reseau_metabolome/accueil.htm)

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Genomics And Biotechnology. **Woodhead Publishing Series In Biomedicine** (Elsevier): Number 72 P153-166

7. Rolin D, Deborde C, Maucourt M, Cabasson C, Jacob D, Canlet C, Moing A **2013** High-Resolution 1h-Nmr Spectroscopy And Beyond To Explore Plant Metabolome. In D Rolin, Ed, *Metabolomics Coming Of Age With Its Technological Diversity*. **Advances In Botanical Research**, Elsevier, Vol 67. P1-66.
8. Ferry-Dumazet H., L. Gil, C. Deborde, A. Moing, S. Bernillon, D. Rolin, M. Nikolski, A. De Daruvar And D. Jacob **2011** Mery-B: A Web Knowledgebase For The Storage, Visualization, Analysis And Annotation Of Plant Nmr Metabolomic Profiles. **BMC Plant Biology** 11:104
9. Allen E., A. Moing, J. Wattis, T. Larson, M. Maucourt, I. Graham, D. Rolin, M. Hooks **2011** Evidence That Acetate Non-Utilizing 1 Prevents Carbon Leakage From Peroxisomes During Lipid Mobilization In Arabidopsis Seedlings. **Biochemical Journal** 437, 505-513.
10. Moing, A. Aharoni, B. Biais, I. Rogachev, S. Meir, L. Brodsky, W. Allwood, A. Erban, W. Dunn, L. Kay, S. Koning, R. De Vos, H. Jonker, R. Mumm, C. Deborde, M. Maucourt, S. Bernillon, Y. Gibon, T. Hansen, S. Husted, R. Goodacre, J. Kopka, J. Schjoerring, D. Rolin And R. Hall **2011** Extensive Metabolic Cross-Talk In Melon Fruit Revealed By Spatial And Developmental Combinatorial Metabolomics. **New Phytologist** 190: 683-696.

### **Invited conferences in congress (2015\_2014)**

Rolin D, B. Beauvoit, S. Colombié, S. Bernillon, C. Bénard, M. Maucourt, P. Ballias, C. Deborde, C. Cabasson, A. Moing, P. Gallusci, E. Teyssier, M. Dieuaide-Noubhani, Y. Gibon 2015 Using metabolomic approaches and modelling of central metabolic to study fruit quality (Tomato). 1st International Symposium on Metabolomics in Mexico. **Cuernavaca, Morelos, Mexico** (June 24 to 26, 2015)

Rolin D., S. Colombié B. Beauvoit, S. Bernillon\*, C. Bénard, D Prodhomme, M. Maucourt, M-H. Andrieu, P. Ballias, C. Deborde, C. Cabasson, A. Moing, P. Gallusci, E. Teyssier, D. Jacob, L. Stammitti, A. Bertrand, M. Hooks, M. Dieuaide-Noubhani, Y. Gibon 2015 Metabolomics meets modelling of central metabolism: a way to study fruit metabolism adaptation to environmental stress. International Meeting in Plant Biotechnology: Plant Stress and Sustainable Agriculture in **Pontificia Universidad Catolica de Chile** (June 30<sup>th</sup>, 2015)

Schurdi-Levraud V. Rolin D. 2015 Master Biology and Biotechnology of Plants and Fungi: Some Feedback on a First Test Year. The International Classroom - English Medium Instruction (EMI) in Bordeaux. **Bordeaux University** (19 mars 2015)

Rolin D 2015 Ways to improve our teaching in Biotechnology and Plant Biology Master. 2<sup>nd</sup> International Conference for Global innovation Joint Degree Program in **Tokyo Japan** (february 14 and 15th)

Rolin D., B. Beauvoit, S. Bernillon, C. Bénard, P. Ballias, C. Deborde, C. Cabasson, S. Colombié, M. Dieuaide-Noubhani, P. Gallusci, D. Jacob\*, A. Moing, M. Maucourt\* JP. Mazat, D. Prodhomme, E. Teyssier, V. Zhendre, Y. Gibon 2014 La métabolomique : un outil de la génomique fonctionnelle au service de la biologie des systèmes. 8<sup>e</sup> Congrès Jeunes Chercheurs de la SFBV **Tours France** (26 -27 juin 2014).

Rolin D. 2014 Témoignage du Directeur de MetaboHUB : Une infrastructure nationale pour la métabolomique et la fluxomique. Journée de l'Association USRAVE-LAS. **Vouille France** (29 septembre 2014)

D. Rolin, F. Bellvert, J. Bertrand-Michel, R. Cole, S. Colombié, C. Deborde, L. Debrauwer, M. Ferrara, L. Fouillen<sup>1</sup> F. Jourdan, C. Jousse, C. Junot, A. Moing, JC. Portais, E. Pujos-Guillot, C. Sautot, E. Thevenot 2014 MetaboHUB and RFMF: two tools at the service of metabolomics and fluxomics in

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France. Developing Metabolomics Platform Technologies through Singapore-French Research Alliance. MERLION Metabolomics Workshop **Singapore 2014** (19–21 November 2014 University Town, NUS, Singapore)

Rolin D. 2014 MetaboHUB: une infrastructure nationale au service de la métabolomique et la fluxomique. 1ère réunion annuelle des Infrastructures Nationales en Biologie Santé 9 décembre 2014, **CNRS, Paris, France**

Rolin D 2014 Introduction à la Spectrométrie de masse et métabolomique de la conception des expériences à l'intégration des données dans les réseaux métaboliques. Deuxième Ecole -Chercheur du RFMF (6 au 10 Octobre 2014, **La Colle sur Loup Alpes Maritimes, France**)