

# CURRICULUM VITAE



## PERSONAL DATA

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### Rebeca Vidal Vidal

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## EDUCATION

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| 1999 | <b>Bachelor in Biology</b> (5 years-degree)<br>University of Seville, Spain   |
| 2010 | <b>PhD in Biochemistry and Molecular Biology</b><br>University of Seville, Spain<br>Title: "Photosynthetic production of ethanol in the cyanobacterium <i>Synechocystis</i> sp. PCC 6803" |

## RESEARCH EXPERIENCE

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| 2010-2014 | Postdoctoral Researcher at IBVF (Seville, Spain)<br>Company/Institution: Algaenergy, S.A./Research Foundation University of Seville<br>Projects: <b>Selection and genetic improvement of microalgae and cyanobacteria for the production of biodiesel / Research on Advances Technologies for comprehensive assessment of algae (VIDA)</b> |
| 2010-2010 | Postdoctoral Researcher at IBVF (Seville, Spain)<br>Company/Institution: University of Seville<br>Project: <b>Study of cyanobacteria for the production of carbonated compounds (polysaccharides and fatty acids) for biodiesel</b>  |
| 2002-2010 | PhD Researcher at IBVF (Seville, Spain)<br>Company/Institution: University of Seville/ Spanish Research Council (CSIC)<br>Projects: <b>Photosynthetic conversion of CO<sub>2</sub> into bioethanol/ Photosynthetic ethanol production with cyanobacteria and microalgae</b>  |
| 2000-2002 | PhD Researcher at EMASESA (Drinking Water Supply Public Service, Seville)<br>Company/Institution: European Union<br>Project: <b>Using automatic monitoring and dynamic modelling for the active management of lakes and reservoirs</b>   |
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## TEACHING EXPERIENCE

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2008-2010      Adjunct at Department of Plant Biochemistry and Molecular Biology, **University of Seville** (Spain)

## PUBLICATIONS

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- 2015      **Vidal, R.** *Identification of the correct form of the mis-annotated response regulator Rre1 from the cyanobacterium Synechocystis sp. PCC 6803.* **2015. FMES Microbiology Letters, 362 (7).** ISSN: 1574-6968
- 2014      Delpino, C. Estrada, V., Laiglecia, J., **Vidal, R.**, Florencio, J. F., García Guerrero, M & Diaz, M.S. *Dynamic Flux Balance Analysis in Cyanobacteria for ethanol production with Simultaneous Optimization Approaches.* 24th European Symposium on Computer Aided Process Engineering. **Computer Aided Chemical Engineering (33): 1165-1170 (2014).** ISSN: 1570-7946
- 2013      Laiglecia, J., Estrada, V., **Vidal, R.**, Florencio, J. F., García Guerrero, M. & Diaz, M. S. *Dynamic flux balance analysis of a genetic engineered cyanobacterium for ethanol production. Parameter estimation.* **Chemical Engineering Transactions (32): 955-960 (2013).** ISSN: 1974-9791
- 2009      **Vidal, R.**, López-Maury, L, Guerrero, M.G., Florencio, F.J.. *Characterization of an alcohol dehydrogenase from de cyanobacterium Synechocystis sp. PCC 6803 that responds to environmental stress conditions via the Hik34-Rre1 two-component system.* **Journal of Bacteriology 191 (13): 4383-4391 (2009).** ISSN: 0021-9193

## COMMUNICATIONS TO CONGRESS

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- R. Vidal, M.G. Guerrero, F.J. Florencio: Stable ethanol production by a genetically engineered strain of the cyanobacterium *Synechocystis* sp. PCC 6803 under continuous regime. International Congress **Alg'n'Chem 2014 – Which future for algae in industry?**. Pag. 78-78. Montpellier, France (2014)
- V. Estrada, R. Vidal, F. J. Florencio, M. G. Guerrero, M.S. Diaz: Parameter Estimation of Bioethanol Production Model by a Genetic Engineered Cyanobacterium. **2012 AIChE Annual Meeting.** Pittsburg, USA (2012)
- R. Vidal, M. G. Guerrero, F. J. Florencio: Light-Driven Ethanol Production From CO<sub>2</sub> by Genetically Engineered Strains of The Cyanobacterium *Synechocystis* sp. PCC 6803. **Esf-Bielefeld-Cebitec Conference on Microbes and Industrial Biotechnology.** Booklet of Abstracts, Pag. 40-40. Bielefeld, Germany (2010)
- R. Vidal, L. López-Maury, M. G. Guerrero, F. J. Florencio: Identificación del Sistema de Dos Componentes Hik2-Rre1 en *Synechocystis* sp. PCC 6803. **XXI Congreso Nacional de Microbiología**, Pag. 001-001. Sevilla, Spain (2007)

- M. G. Guerrero, M. G. González, J. M. Fernandez, J. A. del Campo, R. Vidal: Coupling of CO<sub>2</sub> Capture and Biofuel Generation in Cyanobacterial Systems. The **10<sup>th</sup> International Conference on Applied Phycology**. Num. 10, Pag. 36-36. Kunming, China (2005)
- R. Vidal, L. López-Maury, M. G. Guerrero, F. J. Florencio: Purification and Characterization of an Alcohol Dehydrogenase Induced by Osmotic Stress in *Synechocystis* sp. PCC 6803. **IV Euroconference on the Molecular Bioenergetics of Cyanobacteria**. Num. 4, Pag. 79-79. San Feliu de Guixols, Spain (2005)
- R. Vidal, L. López-Maury, M. G. Guerrero, F. J. Florencio: Análisis y Caracterización del Gen *slr1192* que Codifica para una Alcohol Deshidrogenasa en la Cianobacteria *Synechocystis* sp. PCC 6803. **XXVII Congreso de la Sociedad Española de Bioquímica y Biología Molecular**. Num. 27, Pag. 82-82. Lleida, Spain (2004)
- Escot Muñoz, Carmelo, Vidal Vidal, Rebeca, Martin Montaña, Agustín, Basanta, Alves, Ana, Aguado, Francisco: Some Observations on the Effect of Management of Water Supply Reservoirs in Seville (Southern Spain) on Water Quality. **4th International Conference on Reservoir Limnology and Water Quality**. Ceské Budejovice, Czech Republic (2002)

## SPECIALIZED COURSES

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- **“International Late Autumn School on Advances Techniques in Bacterial Genome Research”**. November 24-27<sup>th</sup>, 2010 at Center for Biotechnology of Bielefeld University. Experimental course in metabolomics techniques.
- **“I Course of Proteomics”**. March-April, 2004 at University of Córdoba. Experimental course in proteomic techniques.
- **“Biotechnology of Microalgae”**. Postgraduate Course at University of Seville. June, 2003. Experimental course in biotechnological techniques of microalgae.
- **“Analysis of toxic microalgae in water supplies”**. Postgraduate course at University of Seville. May, 2000. Practical course on immunological techniques applied to the detection of toxic microalgae in water reservoirs.