

Curriculum Vitae



Personal information

First name / Surname	Rodrigo Ledesma Amaro		
Address(es)			
Telephone			
Mobile			
E-mail	rodrigoledesma@usal.es		
Nationality	Spain		
Date of birth			
Gender	Male		

Personal statement and statement of intent

After a BSc and a MSc degree in Biotechnology and a BSc degree in Chemical Engineering I wanted to combine both research fields in a PhD about Metabolic Engineering. Next step in my career is to be a postdoctoral fellow in a renowned laboratory where I can further develop my skills and knowledge in the field of metabolic engineering. I am especially interested in the field of microbial oils since I think they are potential alternatives to fuels and chemicals derived from petroleum. My long-term career aim is to establish my own academically oriented research group within the EU and be able to work in a multidisciplinary environment with relationship to the industry in order to develop apply research.

I am fully able to independently conduct research projects. I am also a hardworking and highly motivated person. I enjoy international and multidisciplinary science environments. I am always willing to learn and increase my scientific knowledge, thus the prestigious AgreenSkills fellowship could provide me a perfect opportunity to further develop my career.

Education and training

Location and dates	Goteborg (Sweden) 30/8/2013-31/8/2013
Title of qualification awarded	Advanced course in metabolic engineering
Principal subjects/occupational skills covered	Theoretical course in metabolic engineering with practical lessons in modelling and omics data.
Name of Institute	Chalmers University of Technology



Location and dates	7/2013
Title of qualification awarded	Introduction to Systems Biology course
Principal subjects/occupational skills covered	Online course completed with distinction on the field of systems biology.
Name of Institute	Icahn School of Medicine at Mount Sinai

Location and dates	Goteborg (Sweden) 1/6/2013-31/8/2013
Title of qualification awarded	PhD Short stay
Principal subjects/occupational skills covered	EMBO Short term fellowship at Jens Nielsen laboratory working in bioinformatics and modelling constructing the first genome scale metabolic model of <i>Ashbya gossypii</i>
Name of Institute	Chalmers University of Technology

Location and dates	Grignon (France) 1/11/2012-12/12/2012
Title of qualification awarded	PhD Short stay
Principal subjects/occupational skills covered	Short stay in Jean-Marc Nicaud laboratory working in lipid accumulation in both <i>Ashbya gossypii</i> and <i>Yarrowia lipolytica</i>
Name of Institute	Micalis/AgroParisTech/INRA

Location and dates	11/2012
Title of qualification awarded	Writing in the Science course
Principal subjects/occupational skills covered	Online course aimed to improve English writing in scientific publications.
Name of Institute	Stanford University

Location and dates	Salamanca 1/9/2013-1/9/2014
Title of qualification awarded	PhD program in Molecular Microbiology and Genetics
Principal subjects/occupational skills covered	Supporting program of the PhD on systems metabolic engineering of the filamentous fungus <i>Ashbya gossypii</i>
Name of Institute	Universidad de Salamanca

Location and dates	Salamanca 1/9/2011-1/9/2013
Title of qualification awarded	PhD program in Agrobiotechnology
Principal subjects/occupational skills covered	Supporting program of the PhD on systems metabolic engineering of the filamentous fungus <i>Ashbya gossypii</i>
Name of Institute	Universidad de Salamanca and Centro Hispano-Luso de Investigaciones Agrarias

Location and dates	Salamanca (Spain) 1/10/2008-20/2/2014
Title of qualification awarded	BSc in Chemical Engineering



Principal subjects/occupational skills covered	Five years degree in Chemical engineering
Name of Institute	Universidad de Salamanca

Location and dates	Madrid (Spain) 2/2012-6/2012
Title of qualification awarded	Diploma in Food Biotechnology
Principal subjects/occupational skills covered	20 ECTS diploma in the topic of food biotechnology. Some subjects are fermentation technology, transgenic plants and animals and safety and impact
Name of Institute	Universidad Española de Educación a Distancia (UNED)

Location and dates	Madrid (Spain) 1/9/2010-1/7/2011
Title of qualification awarded	MSc in Microbial Biotechnology
Principal subjects/occupational skills covered	60 ECTS master in the field of microbial biotechnology where 30 ECTS were of master thesis in Maria Fernandez Lobato Laboratory at CBM working with lipase expression and characterization
Name of Institute	Universidad Autónoma de Madrid

Location and dates	Salamanca (Spain) 1/7/2011
Title of qualification awarded	"Grado de Salamanca"
Principal subjects/occupational skills covered	Short lab project about folic acid biotechnological production. It was approved with honours.
Name of Institute	Universidad de Salamanca

Location and dates	Salamanca (Spain) 10/9/2005-1/5/2010
Title of qualification awarded	BSc in Biotechnology
Principal subjects/occupational skills covered	5 years degree covering all the topics related to Biotechnology (green, red and white), just to cite some subjects: Molecular biology, Protein engineering, Genetic engineering, Instrumental techniques, Pharmacology, Plant biotechnology, Gene therapy, Bioinformatics and so on.
Name of Institute	Universidad de Salamanca

Location and dates	Salamanca (Spain) 1/9/2009-1/7/2010
Title of qualification awarded	Collaboration grant
Principal subjects/occupational skills covered	1 year of collaboration in a research department to improve lab and teaching skills
Name of Institute	Universidad de Salamanca

Location and dates	Izmir (Turkey) 15/7/2009-15/8/2009
Title of qualification awarded	Laboratory short stay exchange



Principal subjects/occupational skills covered	Rotation in three different laboratories in order to learn new different techniques in different topics from pharmacology to brain research
Name of Institute	EGE University

Location and dates	Salamanca (Spain) 1/6/2009-14/7/2009 and 16/8/2009-31/8/2009
Title of qualification awarded	Practical training
Principal subjects/occupational skills covered	2 months of practical training in molecular biology
Name of Institute	IBFG(CSIC) (Insituto de Biología Funcional y Genómica)

Location and dates	Ghent (Belgium) 10/9/2008-5/2/2009
Title of qualification awarded	Erasmus student
Principal subjects/occupational skills covered	Elaboration of a Master thesis in Dominique Van Der Straeten in molecular plant biotechnology.
Name of Institute	Ghent University

Work experience

Location and dates	Salamanca, Spain 9/2010-8/2014
Occupation or position held	PhD student-FPU fellow
Main activities and responsibilities	Research and teaching
Name of employer	Universidad de Salamanca

Location and dates	From 2011 until today
Occupation or position held	Assistant editor
Main activities and responsibilities	Launch new book and journal in the field of Biology
Name of employer	Versita publishing (Parter of Springer, de Gruyter, etc)

Location and dates	Goteborg, Sweden 1/6/2013-31/8/2014
Occupation or position held	Short term EMBO Fellow
Main activities and responsibilities	Research
Name of employer	EMBO

Location and dates	Madrid, Spain 9/2010-8/2011
Occupation or position held	CSIC fellow (JAE-pre fellowship)
Main activities and responsibilities	Study MSc and research
Name of employer	CSIC (Spanish Research Council)

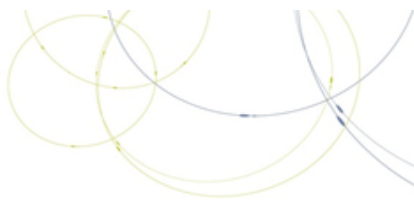
Location and dates	Salamanca (Spain) 1/9/2009-1/7/2010
Occupation or position held	MECD fellow (collaboration at university departments fellowship)
Main activities and responsibilities	Research and training
Name of employer	Department of Microbiology and Genetics, University of Salamanca, Spain. Ministerio de Educación, Cultura y Deporte (MECD)

Languages

Mother tongue(s)	Spanish				
Other language(s) <i>European level (*)</i>	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
German	A1	A1	A1	A1	A1
French	A1	A1			
(*) Common European Framework of Reference for Languages http://europass.cedefop.europa.eu/en/resources/european-language-levels-cefr					

Academic Record

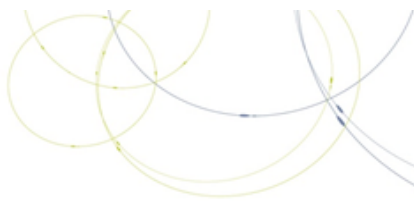
Publications	Accepted, in press and published articles / papers:
	<ol style="list-style-type: none"> Ledesma-Amaro R, Santos MA, Jimenez A, Revuelta JL. 2014. Tuning single-cell oil production in <i>Ashbya gossypii</i> by engineering the elongation and desaturation systems. <i>Biotechnology and Bioengineering</i>. doi: 10.1002/bit.25245 Accepted the 25th of March 2014 (In Press) Ledesma-Amaro R, Santos MA, Jimenez A, Revuelta JL. 2014. Strain design of <i>Ashbya gossypii</i> for single cell oil production. <i>Applied Microbiology and Biotechnology</i>. doi: 10.1128/aem.03560-13 (Article selected as Spotlight of the Journal) Ledesma-Amaro R; Kerkhoven E, Revuelta JL, Nielsen J. 2013. Genome scale metabolic modeling of the riboflavin overproducer <i>Ashbya gossypii</i>. <i>Biotechnology and Bioengineering</i>. doi: 10.1002/bit.25167 Accepted the 25th of November 2013 (In Press) Revuelta JL, Jimenez A, Ledesma-Amaro R. 2013. Fatty acid production in <i>Eremothecium</i>. European Patent: EP-Patentanmeldung Nr. 13 190 151.4; BASF-Az.: PF75879 (INV0075879). Ledesma-Amaro R, Jimenez A, Santos MA, Revuelta JL. 2013. Biotechnological production of feed nucleotides by microbial fermentation. <i>Process Biochemistry</i>. Volume 48 Issue 9 September 2013
	Submitted publications:
	<ol style="list-style-type: none"> Ledesma-Amaro R, Serrano-Amatriain C, Jimenez A, Revuelta JL. Metabolic engineering of the purine and riboflavin synthetic pathway to improve vitamin B2 production in <i>A. gossypii</i>. (Submitted for patent application (BASF) and Metabolic engineering) Ledesma-Amaro R, Martinez-Buey R, Revuelta JL. Increased production of inosine and guanosine through metabolic engineering of the purine pathway in <i>Ashbya gossypii</i>. (Submitted for patent application (BASF) and Bioresource Technology) Martinez-Buey R, Ledesma-Amaro R, Santos MA, Revuelta JL. Functional and structural characterization of IMP dehydrogenase a key enzyme in riboflavin production from <i>Ashbya gossypii</i>. (Submitted for patent application (BASF) and <i>Journal of Industrial Microbiology and</i>



	Biotechnology)
Presentations as invited speaker	Invited speaker at Eckhard Boles' lab at Goethe University Frankfurt with the title of: Systems metabolic engineering of <i>Ashbya gossypii</i> . Date: 26/3/2014 Granted to speak at the 6 th and 7 th Workshop on Fats and Oils as Renewable Feedstocks for the Chemical Industry. 2013 and 2014. Karlsruhe, Germany
Authored books or book chapter(s)	Ledesma-Amaro R , Jimenez A, Santos MA, Revuelta JL. Microbial production of vitamins. 2013. Book chapter in: Microbial production of food ingredients, enzymes and nutraceuticals. Woodhead Publishing Series in Food Science, Technology and Nutrition No. 246.
Participation in open calls for proposals as contributor or leader	Contributor to: 25/3/2014. "Ingeniería metabólica para la producción de lípidos en <i>A. gossypii</i> a partir de efluentes lignocelulósicos de la industria del bioetanol." (Metabolic engineering of lipid production in <i>A. gossypii</i> using bioethanol lignocellulosic waste.) Just submitted as a proposal to be a research project funded by "Junta de Castilla y Leon". BIO2011-23901. "Producción de ácidos grasos poliinsaturados en el hongo <i>Ashbya gossypii</i> " (Polyunsaturated fatty acid production in the fungus <i>Ashbya gossypii</i>). National project funded by the Spanish Ministry of Science (Now Ministry of Economy)
Graduate teaching as lecturer or training coordinator	Teacher of training course in Genetics, subject of the BSc in Biotechnology program during the last 3 years 2011/2012, 2012/2013 and 2013/2014.
Awards and prizes, if any	Holder of a short term EMBO fellowship 2013 Holder of FPU fellowship 2011 Holder of Jae-Pre fellowship 2010 Holder of a Collaboration fellowship 2009

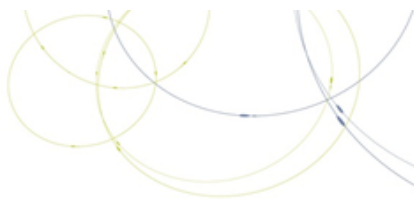
Collaboration and Networking

Participation in collaborative projects funded by competitive programmes	Participant in the national project called BIO2011-23901 within a 7 researchers network funded by the Spanish Ministry of Science.
Partnerships or experience with industry	Along my PhD projects I had the opportunity to work and have contact with 3 industries: BASF, Abengoa and Bioiberica. Indeed one of our patents was transferred to BASF and nowadays it is licensed to Abengoa. At this time we are working in two more patents in cooperation with BASF. We are in contacts to Bioiberica with our project related to nucleosides production in <i>Ashbya gossypii</i> . We have just applied for a project (Metabolic engineering of lipid production in <i>A. gossypii</i> using bioethanol lignocellulosic waste) where Abengoa is our industrial partner.
University or post-graduate programme leader	Congress organizer of: "Biotechnology and enterprising" in Salamanca, March 2009.
Graduate teaching as lecturer or training coordinator; PhD supervision	I have actively participated in the supervision of two visiting students from Germany (BASF and TUM), co-supervised the Master thesis of Patricia Lozano-Martinez and currently co-supervising her PhD thesis
Membership of professional bodies and committees	- Charter member of ABSal (Salamanca Biotechnology Association) - Vice president of ABSal for three years (Salamanca Biotechnology Association) - Charter member of FEBIOTEC (Spanish Federation of Biotechnology) - Member of the YEBN (Young European Biotech Network) - Member of the EFB (European Federation of Biotechnology)



Research management, Technology transfer, and Communication

Consultancy for the public or private sector	During my work at Versitas I am requested to evaluate proposals for books.
Other experience and skills relevant to the application	
Manuscripts and patents in preparation	3 patents under preparation 5 manuscripts under preparation (3 as first author)
Oral communications in European and international meetings	<ul style="list-style-type: none"> • 7th Workshop on Fats and Oils as Renewable Feedstocks for the Chemical Industry. 2013. Karlsruhe, Germany Ledesma-amaro R; Lozano-Martinez P, Revuelta JL. Microbial oil as a renewable feedstock: Improving Single Cell Oil properties by metabolic engineering • 2nd Applied Synthetic Biology in Europe. 2013. Malaga, Spain. Ledesma-amaro R; Kerkhoven EJ, Nielsen J, Revuelta JL. Systems metabolic engineering in the industrial fungus <i>Ashbya gossypii</i>: From in silico predictions to in vivo biotechnological production of flavor enhancers • 6th Workshop on Fats and Oils as Renewable Feedstocks for the Chemical Industry. 2013. Karlsruhe, Germany Ledesma-amaro R; Revuelta JL. Fine-tuning fatty acids length chain by metabolic engineering for “Single Cell Oils” strategies in <i>Ashbya gossypii</i>
Posters in European and international meetings	<ul style="list-style-type: none"> • 11th International Yeast Lipid Conference. May 2013. Halifax, Nova Scotia, Canada. Poster Abstract: Revuelta JL, Ledesma-amaro R; Santos M.A; Jimenez A; Serrano C; Uña JA; Lozano-Martinez P. Metabolic engineering of <i>Ashbya gossypii</i> to produce and accumulate high value oils. • 63rd Annual Meeting of Society for Industrial Microbiology. 2013 Annual Meeting and Exhibition. August 2013, San Diego, CA Poster Abstract: Revuelta JL, Ledesma-amaro R; Santos M.A; Jimenez A; Serrano C; Uña JA; Lozano-Martinez P. Engineering fatty acids profile in <i>Ashbya gossypii</i>: Broadening the range of applications for Single Cell Oils • 62st Annual Meeting of Society for Industrial Microbiology. 2012 Annual Meeting and Exhibition. August 2012, Washington, DC. Poster Abstract P106: Revuelta JL; Ledesma-amaro R; Serrano C; Uña JA; Vilariño C; Jimenez A; Santos M.A. Identifying the fatty acid elongation and desaturation system in <i>A. gossypii</i>: towards Single Cell Oil production • IX Congreso Nacional de Micología. Cadiz 2012, Spain. Abstract: Revuelta JL; Santos MA; Jimenez A; Serrano C; Ledesma-amaro R; Uña JA; Vilariño C Producción biotecnológica de vitaminas. • 61st Annual Meeting of Society for Industrial Microbiology. 2011 Annual Meeting and Exhibition. July 2011, Sheraton New Orleans LA Poster Abstract P154: Revuelta JL; Sanchez M; Serrano C; Uña JA; Vilariño C; Ledesma-amaro R; Jimenez A; Santos MA. Genome sequence of the astaxanthin producer yeast <i>Xanthophyllomyces dendrorhous</i> • “5th International Meeting in Biotechnology BioSpain” Pamplona, Spain, 2010. Abstract: Revuelta JL; Serrano C; Uña JA; Vilariño C; Lisa-santamaria P; Ledesma-



	amaro R; Jimenez A; Santos MA. Cell factories for vitamin production
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Scientific References

Full name	Jose Luis Revuelta Doval
Position	Senior Professor
Institution	Universidad de Salamanca
Email address	revuetla@usal.es

Full name	Jean-Marc Nicaud
Position	Senior Professor
Institution	MICALIS
Email address	jean-marc.nicaud@grignon.inra.fr

Full name	Ruben Martinez Buey
Position	Researcher
Institution	Universidad de Salamanca
Email address	ruben.martinez@usal.es

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