

SARA ABALDE-CELA, PhD



Dr Sara Abalde-Cela is a Research Fellow at the International Iberian Nanotechnology Laboratory (INL) in Braga, Portugal (2019-now). She works at the Department of Life Sciences, within the Medical Devices group. The research project she is involved at focuses on the development of microfluidic platforms for the detection of cancer cells, as a continuation of her Marie Curie project (2017-2019). The goal of her project is to develop a real-time and on-chip method for circulating tumour cell detection based on Surface enhanced-Raman scattering (SERS) spectroscopy.

Sara holds a PhD in nanotechnology by the **Universidad de Vigo** (Spain, 2008-2013) and postdoctoral experience at the **University of Cambridge** (UK, 2013-2016). Her experience in research gathers expertise from nanotechnology and Raman spectroscopy to microfluidics and microdroplets for biotechnology applications. Sara won several funding, research awards and recognitions along her career, she has around 30 contributions to conferences, 17 peer-reviewed publications and 1 filed patent. She has also being involved in lecturing, science outreach and startup programs in Cambridge, London, Vigo and Braga.

Sara is also the co-founder and CTO of the start-up RUBYnanomed (2018 – now).

CONTACT DETAILS

International Iberian Nanotechnology Laboratory, INL

Avda. Mestre José Veiga s/n, 4715-330

Braga, Portugal

Contact details

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sara.abalde.cela@gmail.com (Permanent)

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+34 669317721 (personal)

PROFESSIONAL EXPERIENCE

2019-now	Research Fellow	INL, Portugal
2017-2019	Marie Curie COFUND Fellow	INL, Portugal
2018-now	CTO	RUBYnanomed
Apr. 2016-Dec. 2016	Senior Researcher Advanced Materials	AIMEN Centro Tecnológico, Spain
2013-2016	Postdoctoral Research Associate	University of Cambridge, UK
2008-2013	PhD - Colloid Chemistry Group	University of Vigo, Spain
2008-2010	Advanced Studies Diploma (~MSc)	University of Vigo, Spain
2008-2009	Graduate Thesis	University of Vigo, Spain
Jun. 2007-Sep.2007	Summer Studentship	Biomedical Foundation-Vigo

EDUCATION

2008-2013	PhD Thesis	University of Vigo, Spain
2008-2010	Advanced Studies Diploma (~MSc)	University of Vigo, Spain
2008-2009	Graduate Thesis	University of Vigo, Spain
2003-2008	BSc Chemistry	University of Vigo, Spain

TEACHING AND SUPERVISION EXPERIENCE

DATE	SUBJECT	PLACE
2018	Supervisor	Summer student + visiting student, INL, Portugal
2018	Supervisor	Master student, INL, Portugal
2017	Supervisor	Summer student, INL, Portugal
2017- 2018	Invited lecturer	Integrated master in Physics Engineering, Universidade de Minho, Portugal
2015	Lecturer	Graduate Student Series- University of Cambridge, UK
2015	Supervisor	Master Student – University of Cambridge, UK
2014	Supervisor	Visiting Master Student – 4 months, U. Cambridge, UK
2013-2014	Tutorials - Chemistry	Lucy Cavendish College, University of Cambridge, UK
2013	Tutorials- High-resolution molecular spectroscopy	King’s College, University of Cambridge, UK St. John’s College, University of Cambridge, UK
2012	Chemistry I	University of Vigo, Spain
2012	Chemical Oceanography	University of Vigo, Spain

LANGUAGES

LANGUAGE	SPEECH	READING	WRITING
Spanish	Native		
English	Proficient		
Portuguese	Advanced		
Italian	Low intermediate		
Galician	Native		

RESEARCH INTERESTS/SCIENTIFIC KNOWLEDGE

- **Vibrational spectroscopies:** Raman, SERS
- **Synthesis and characterization of metallic nanostructures and nanocomposites**
- **Fabrication and applications of microfluidic devices**
- **Biotechnology, nanomedicine**
- **Optical nanosensors and biosensors**
- **Surface chemistry**
- **Liquid biopsy**
- **Single-cell studies**

INSTRUMENTAL TECHNIQUES

- **Raman, fluorescence and UV-vis spectroscopy:**
 - Micro-Raman: visible (488, 532, 633) and infrared (785 nm, 830 nm)
 - SERS, SERRS, Raman imaging and mapping
 - Fluorescence imaging, LIF, FADS.
- Scanning and transmission **electron microscopy** (TEM, STEM)
- **Photolithography and soft-lithography** for microfluidic chips masters production
- Molecular modelisation (Gaussian'03): Molecular mechanics, molecular dynamics, semi-empirical methods and *ab initio* methods (Hartree-Fock and Density Functional Theory).

INVOLVEMENT IN RESEARCH PROJECTS (12)

TITLE: Innovative Microfluidic Platform for Analysis of myeloid Leukemia blasts (Impact-L)

FUNDS: Fundação de Ciencia e Tecnologia (FCT) – 267 K €

DATE: 2018-2021

PI: Lorena Diéguez, Sara Abalde-Cela (co-PI)

TITLE: A portable plasmonic sensor for the real-time and online characterisation of cancer cells.

FUNDS: MSCA-COFUND-2015-FP - Marie Skłodowska-Curie Co-funding of regional, national and international programmes (COFUND-FP), 713640 – 110 K € (for the individual project of Dr Sara Abalde-Cela)

DATE: 2017-2020

PI: Sara Abalde-Cela (PI)

TITLE: Microbiome on-a-chip

FUNDS: INL – ICVS (Portugal) - Internal funding competition – 5 K €

DATE: 2017

PI: S. Abalde-Cela, N. Osório, R. Silvestre, L. Pires, C. Carvalho, S. Costa.

TITLE: FaiERA – Fostering AIMEN research potential in laser technology

FUNDS:	FP7 – UE – 7 M €
DATE:	2016
PI:	AIMEN Centro Tecnológico

TITLE:	Development of a microfluidic device for high-throughput analysis of genetic circuits in plant protoplasts
FUNDS:	SynBio Fund, University of Cambridge - £ 4 K
DATE:	2016
PI:	Dr. Sara Abalde-Cela, Dr. S. J. Burgess, Dr. Ivan Llo, Dr. W.P. Bennett, Dr. C.R. Boehm

TITLE:	Direct Ethanol from Microalgae (DEMA)
FUNDS:	Seventh Framework Programme from the European Union-FP7 – 6.4 M €
DATE:	2013-2015
PI:	Prof. Chris Abell

TITLE:	Detección universal de proteínas mediante sistemas de sensores ópticos
FUNDS:	Ministry of Economy and Competitiveness- Spanish Government
DATE:	2012-2014
PI:	R.A. Álvarez-Puebla

TITLE:	Fabrication of metallodielectric micro-composites with applications in ultrafast disease diagnosis.
FUNDS:	Ministry of Science and Innovation- Spanish Government
PERIOD:	2011-2013
PI:	L.M. Liz-Marzán

TITLE:	Fabricación, optimización y aplicación de nuevos “optical enhancers” para SERS.
FUNDS:	Ministry of Science and Innovation- Spanish Government
DATE:	2007-2012
PI:	R.A. Álvarez-Puebla

TITLE:	Ultrasensitive nanobiosensors based in SERS for diagnosis and biodetection.
FUNDS:	General Department for R&D- Galician Government
DATE:	2008-2011
PI:	R.A. Álvarez-Puebla

TITLE:	SERS and SEF application of hybrid microparticles to the discovering of new drugs with biological activities, diagnosis and high-throughput screening.
FUNDS:	Ministry of Science and Innovation-Spanish Government
DATE:	2008-2011
PI:	R.A. Álvarez Puebla

TITLE:	Rational design of (bio)sensors based on metallic nanoparticles.
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FUNDS: Ministry of Science and Innovation- Spanish Government
 DATE: 2007-2010
 PI: L. M. Liz Marzán

TEMPORARY STAYS ABROAD (3)

PROJECT: Developing a machine learning tool for deconvolution of SERS spectra
 HOST INSTITUTION: **Saarland University (Dr Tilman Sauerwald)**
 COUNTRY: Saarland (Germany)
 PERIOD: September 2018-1 week

PROJECT: Nanoparticle assembly in microdroplets for SERS detection.
 HOST INSTITUTION: **University of Cambridge**
(Prof. Chris Abell - Microdroplets Group)
 COUNTRY: Cambridge (United Kingdom)
 PERIOD: September 2011-December 2011

PROJECT: Nanoparticle synthesis in microfluidic systems.
 HOST INSTITUTION: **University of Cambridge**
(Prof. Chris Abell - Microdroplets Group)
 COUNTRY: Cambridge (United Kingdom)
 PERIOD: September 2009-December 2009

INTELLECTUAL PROPERTY (1)

AUTHORS: **S. Abalde-Cela**, L. Diéguez
 TITLE: Device and method for analysis
 REF.: EP17189246.6 (PT) filed 2017; PCT/EP2018/073769 filed 2018

PUBLICATIONS (20)

* *Corresponding author*

Equal contribution

- ❖ **S. Abalde-Cela**, L. Wu, L. Diéguez, Surface-enhanced Raman scattering spectroscopy as a powerful and multiplexing technique for liquid biopsy, *in preparation*
- ❖ Laura Rodríguez-Lorenzo, Alejandro Garrido-Maestu, Arun K. Bhunia, Marta Prado, Begoña Espiña, Lorena Diéguez, **Sara Abalde-Cela***, A SERS-based optofluidic device for the rapid detection of *Listeria monocytogenes*, *in preparation*
- ❖ **Sara Abalde-Cela**, Rita Daniela Nogueira, Lei Wu, Ana Isabel Barbosa, Laura Rodríguez-Lorenzo, Krishna Kant, Vitor Manuel Correlo, Lorena Diéguez, Engineering a nanoparticle loaded gellan gum 3D smart scaffold for ultrasensitive SERS sensing, *in preparation*
- ❖ Teixeira, Juan F. Hernández-Rodríguez, Kevin Oliveira, Lei Wu, Kevin Oliveira, Krishna Kant, Lorena Diéguez, **Sara Abalde-Cela***, [Microfluidics-driven fabrication of a low cost and ultrasensitive SERS-based paper sensor](#), *Applied Sciences* (2019), 9 (7), 1387

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- ❖ L. Wu, A. Garrido-Maestu, J. R. L. Guerreiro, S. Carvalho, **S. Abalde-Cela**, M. Prado, L. Diéguez, [Amplification-free SERS Analysis of DNA Mutation in Cancer Cells with Single-base Sensitivity](#), *Nanoscale* (**2018**), 2019, 11, 7781 – 7789
 - ❖ **S. Abalde-Cela**, P. Piairo, L. Diéguez, [Significance of Circulating Tumor Cells in the Clinic](#), *Acta Cytologica*, (**2018**), 1-13
 - ❖ Krishna Kant, **Sara Abalde-Cela***, [Surface-enhanced Raman scattering spectroscopy and microfluidics: towards ultrasensitive label-free sensing](#), *Biosensors* (**2018**), 8 (3), 62
 - ❖ **S. Abalde-Cela***, P. Taladriz-Banco, M. Ganzarolli de Oliveira, C. Abell, [Droplet microfluidics for the highly controlled synthesis of branched gold nanoparticles](#), *Scientific Reports* (**2018**), **8**, 2440 [Top 100 Read Article 2018](#)
 - ❖ A. Garrido-Maestu, S. Azinheiro, J. Carvalho, **S. Abalde-Cela**, E. Carbó-Argibay, L. Dieguez, M. Piotrowski, Y. V. Kolenk'ko, M. Prado, [Combination of microfluidic loop-mediated isothermal amplification with gold nanoparticles for rapid detection of Salmonella spp. in food samples](#), *Frontiers in Microbiology* (**2017**), *8*, 2159
 - ❖ R. Best, J. J. Lyczakowski, **S. Abalde-Cela**, Z. Yu, C. Abell, A. G. Smith, [Label-free analysis and sorting of microalgae and cyanobacteria in microdroplets by native chlorophyll fluorescence](#), *Anal. Chem.*, (**2016**), *88(21):10445-10451*
 - ❖ R. Best, **S. Abalde-Cela**, C. Abell, A. G. Smith, [Applications of microdroplet technology for algal biotechnology](#), *Current Biotechnology*, (2016), 5 (2): 109-117
 - ❖ **S. Abalde-Cela**, S. Carregal-Romero, J.P. Coelho, A. Guerrero-Martínez, [Recent progress on colloidal metal nanoparticles as signal enhancers in nanosensing](#), *Advances in Colloid and Interface Science*, (**2016**), 233:255-270
 - ❖ **S. Abalde-Cela**, A. Gold, X. Liu, E. Kazamia, A.G. Smith, C. Abell, [High-throughput detection of ethanol-producing cyanobacteria ethanol in a microdroplet platform](#), *JRSI*, **12**: 2015.0216
 - ❖ **S. Abalde-Cela**, R.A. Álvarez-Puebla, C. Abell, L.M. Liz-Marzán, [Real-time dual-channel multiplex SERS ultradetection](#), *J. Phys. Chem. Lett.*, (**2014**), 5(1), 73-79 [ACS LiveSlides](#)
 - ❖ V. López-Puente, **S. Abalde-Cela**, P.C. Angelomé, R.A. Álvarez-Puebla, L.M. Liz-Marzán, [Plasmonic mesoporous composites as molecular sieves for SERS detection](#), *J. Phys. Chem. Lett.*, (2013), 4, 2715-2720 [Featured in C&EN 'Molecular sieves for SERS' ACS LiveSlides](#)
 - ❖ Rafael Contreras-Cáceres*, **Sara Abalde-Cela***, Pablo Guardia-Girós, Antonio Fernández-Barbero, Jorge Pérez-Juste, Ramón A. Álvarez-Puebla, Luis M. Liz-Marzán, [Multifunctional microgel magnetic/optical traps for SERS ultradetection](#), *Langmuir*, (**2011**) 27, 4520-4525
 - ❖ **S. Abalde-Cela**, J.M. Hermida-Ramón, P. Contreras-Carballada, L. De Cola, A. Guerrero-Martínez, R.A. Álvarez-Puebla, L.M. Liz-Marzán, [SERS Chiral Recognition and Quantification of Enantiomers through Cyclodextrin Supramolecular Complexation](#), *ChemPhysChem*, (**2011**) 12,1529-1535

- ❖ **S. Abalde-Cela**, B. Auguie, M. Fischlechner, W.T.S. Huck, R.A. Álvarez-Puebla, L.M. Liz-Marzán, C. Abell, [Microdroplet fabrication of silver-agarose nanocomposite beads for SERS optical accumulation](#), *Soft. Matter.*, **(2011)** **7**, 1321-1325
- ❖ **Sara Abalde-Cela**, Paula Aldeanueva-Potel, Cintia Mateo-Mateo, Laura Rodríguez-Lorenzo, Ramón A. Álvarez-Puebla and Luis M. Liz-Marzán, [Surface-enhanced Raman scattering biomedical applications of plasmonic colloidal particles](#), *J. Roy. Soc. Interface*, **(2010)**, **7**, S4335-S450.
- ❖ **Sara Abalde-Cela**, Peter Ho, Benito Rodríguez-González, Miguel A. Correa-Duarte, Ramón A. Álvarez-Puebla, Luis M. Liz-Marzán, Nicholas A. Kotov, [Loading of exponentially grown LBL films with Ag nanoparticles and their application for generalized SERS detection](#), *Angew. Chem. Int. Ed.*, **(2009)** **48**, 5326 –5329.

CONFERENCE CONTRIBUTIONS / DISSEMINATION (33)

>10 invited >20 oral contributions

AUTHORS: Alexandra Teixeira, Juan F. Hernández-Rodríguez, Kevin Oliveira, Lei Wu, Kevin Oliveira, Krishna Kant, **Sara Abalde-Cela**, Lorena Diéguez

TITLE: Microfluidics for the simple and low-cost fabrication of a SERS-based paper sensor with ultra-detection capability

MEETING: Mission 1000, Braga (Portugal), 2018

AUTHORS: L. Passos, **S. Abalde-Cela**, P. Fuciños, L. Diéguez, L.M. Pastrana, M.A. Cerqueira, S. Sillankorva

TITLE: Fabrication of highly monodisperse bacteriophage-loaded microstructures in droplet microfluidics

MEETING: Mission 1000, Braga (Portugal), 2018

AUTHORS: **S. Abalde-Cela**, Silvina Ribeiro-Samy, L. Diéguez

TITLE: Surface-enhanced Raman scattering and microdroplets for the study of circulating tumour cells

MEETING: Women in Photonics Workshop, Jena, (Germany), 2018

AUTHORS: **S. Abalde-Cela**, S. Ribeiro-Samy, A. Chícharo, L. Diéguez

TITLE: A microdroplets platform for the analysis of circulating tumour cells by using surface-enhanced Raman scattering

MEETING: 4BIO Summit – Microfluidics Conference, London (UK), 2017

AUTHORS: **S. Abalde-Cela**, S. Ribeiro-Samy, L. Diéguez

TITLE: Label-free isolation and multiplex analysis of Circulation Tumor Cells on a chip

MEETING: ETPN Annual Meeting, Málaga (Spain), 2017 **Best poster award**

AUTHORS: **S. Abalde-Cela**, L. Diéguez, S. Ribeiro-Samy

TITLE: On-chip analysis of the heterogeneity of circulating tumour cells by means of surface-enhanced Raman scattering.

MEETING: Micro and Nanoengineering (MNE), Braga (Portugal), 2017

AUTHORS: **S. Abalde-Cela**, P. Taladriz-Blanco, C. Abell.

TITLE: Microfluidic reactors for nanotechnology: highly controlled synthesis of spiky gold nanoparticles in microdroplets.

MEETING: Micro and Nanoengineering (MNE), Braga (Portugal), 2017

AUTHORS: **S. Abalde-Cela**, L. Diéguez, S. Ribeiro-Samy

TITLE: Surface-enhanced Raman scattering as label-free method for the study of the heterogeneity of circulating tumour cells.

MEETING: Label-free particle sorting (LAPASO) Workshop, Lund (Sweden), 2017.

Best poster award

AUTHORS: **S. Abalde-Cela**, P. Taladriz-Blanco, C. Abell.

TITLE: Highly controlled synthesis of gold nanostars in microdroplets.

MEETING: RICI2017- Reunión Ibérica de Coloides e Interfases, Madrid (Spain), 2017

AUTHORS: **S. Abalde-Cela**

TITLE: Microdroplets: Tiny lab toys for cell biology analysis

MEETING: **INVITED EXTERNAL EXPERT** for seminar series (6 talks) about microdroplets technology, Japan, 2017: (1) Keiō University; (2) Riken Centre; (3) Tokyo University; (4) Nagoya University; (5) Kyoto University; (6) NCCHD, Tokyo.

AUTHORS: **S. Abalde-Cela**, R. Best, J. J. Lyczakowski, Z. Yu, C. Abell, A. G. Smith.

TITLE: Novel tools for biotechnology: label-free analysis and sorting of microalgae and cyanobacteria in microdroplets by native chlorophyll fluorescence

MEETING: Microfluidics Congress, London (UK), 2015

AUTHORS: P. Taladriz-Blanco, **S. Abalde-Cela**, C. Abell.

TITLE: Highly controllable synthesis of gold nanostars in microdroplets

MEETING: Microfluidics Congress, London (UK), 2015

AUTHORS: **S. Abalde-Cela**, A. Gould, X. Liu, E. Kazamia, C. Abell, A. G. Smith.

TITLE: High-throughput detection of ethanol-producing cyanobacteria in a microdroplet platform

MEETING: Phyconet Annual Conference, London (UK), 2015 **Best oral presentation award**
<https://twitter.com/PHYCONET/status/636528239092084737>

AUTHORS: A. R. Salmon, R. Esteban, R. W. Taylor, J. T. Hugall, **S. Abalde-Cela**, O. A. Scherman, J. Aizpurua, C. Abell, J. J. Baumberg

TITLE: Real-time Monitoring of Plasmonics and SERS in Microfluidic Droplets: Towards the Artificial Selection of Microalgae for Biofuel Production

MEETING: SPP7 Conference, Jerusalem (Israel), 2015

AUTHORS: **S. Abalde-Cela**, R.A. Álvarez-Puebla, C. Abell, L.M. Liz-Marzán

TITLE: Real-time dual-channel multiplex SERS ultradetection.

MEETING: Lab-on-a-chip Asia 2014, Nanjang Technological University (Singapore), 2014

Best poster Award

AUTHORS: **S. Abalde-Cela**, A. Gold, X. Liu, E. Kazamia, A.G. Smith, C. Abell.

TITLE: High-throughput analysis of cyanobacteria ethanol producers as means of fluorescence in a microdroplet platform

MEETING: Lab-on-a-chip Asia 2014, Nanjang Technological University (Singapore), 2014

AUTHORS: **S. Abalde-Cela**.

TITLE: Microdroplets: Tiny lab toys with enormous potential

MEETING: **Open graduate day admissions - Dpt. Chemistry - Dissemination talk**, University of Cambridge (UK), 2014

AUTHORS: **S. Abalde-Cela**.

TITLE: Microdroplets: Tiny lab toys with enormous potential in applied materials and biological science

MEETING: **INVITED TALK**, Universidade de Vigo (Spain), 2014

AUTHORS: **S. Abalde-Cela**.

TITLE: Nanotecnología: promesas y riesgos

MEETING: **INVITED TALK - Instituto Cañada Blanch**

REF.: London (UK), 2014

AUTHORS: Elena Kazamia, **Sara Abalde-Cela**, Chris Abell and Alison G. Smith.

TITLE: Designing consortia to increase productivity of ethanol-producing cyanobacteria.

MEETING: 4th International Bielefeld-CeBiTec Research Conference: Prospects and challenges for the development of algal biotechnology, Bielefeld University (Germany), 2014

AUTHORS: Vanesa López-Puente, **Sara Abalde-Cela**, Paula C. Angelomé, Ramón A. Álvarez-Puebla, Luis M. Liz-Marzán.

TITLE: Plasmonic mesoporous composites as molecular sieves for SERS. (Poster and oral contribution).

MEETING: 1st SAVVY Workshop, San Sebastián (Spain), 2012

AUTHORS: **Sara Abalde-Cela**, Rafael Contreras-Cáceres, Pablo Guardia-Girós, Antonio Fernández-Barbero, Jorge Pérez-Juste, Ramón A. Álvarez-Puebla, Luis M. Liz-Marzán

TITLE: Polymer hybrid magnetic/optical traps for SERS ultradetection of pollutants.

MEETING: XIX Escuela Internacional de Verano Nicolás Cabrera-International Summer School on Fluorescent Nanoparticles in Biomedicine, Madrid (Spain), 2012

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- AUTHORS: D. Tsoutsis, **S. Abalde-Cela**, R. A. Álvarez-Puebla, L. M. Liz Marzán.
TITLE: Novel strategies for generalized SERS detection.
MEETING: V Workshop de Nanociencia y Nanotecnología Analítica
REF.: Toledo (Spain), 2011
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- AUTHORS: **S. Abalde-Cela**, J. M. Hermida-Ramón, P. Contreras-Carballada, L. De Cola, A. Guerrero-Martínez, R.A. Álvarez-Puebla, L.M. Liz-Marzán.
TITLE: SERS Chiral Recognition and Quantification of Enantiomers through Cyclodextrin Supramolecular Complexation
MEETING: 4th Iberian Meeting on Colloids and Interfaces (RICI4), Oporto (Portugal), 2011
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- AUTHORS: **Sara Abalde-Cela**, Rafael Contreras-Cáceres, Pablo Guardia-Girós, Antonio Fernández Barbero, Jorge Pérez-Juste, Ramón A. Álvarez-Puebla, Luis M. Liz-Marzán.
TITLE: Multifunctional microgel magnetic/optical traps for ultrasensitive SERS detection.
MEETING: International Workshop on Nanoplasmonics for energy and the environment, Sanxenxo (Spain), 2011
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- AUTHORS: **Sara Abalde-Cela**, Martin Fischlechner, Baptiste Auguie, Chris Abell, Ramón A. Álvarez-Puebla, Luis Liz-Marzán.
TITLE: Fabrication of ultrasensitive SERS substrates with microdroplets.
MEETING: International Workshop on Molecular Materials., Sanxenxo (Spain), 2010
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- AUTHORS: **Sara Abalde-Cela**, Peter Ho, Benito Rodríguez-González, Miguel A. Correa-Duarte, Ramón A. Álvarez-Puebla, Luis M. Liz-Marzán, Nicholas A. Kotov.
TÍTULO: Exponentially grown LBL films with silver nanoparticles as SERS optical accumulators for ultrasensitive detection.
MEETING: 23rd Conference of the European Colloid and Interface Society, Antalya (Turquía), 2009
-
- AUTHORS: C. Mateo-Mateo, **S. Abalde-Cela**, R. Álvarez-Puebla, L. Liz-Marzán.
TITLE: Fabrication of magnetite coated micron-sized polymer beads.
MEETING: Reunión Ibérica de Coloides e Interfases (RICI), Granada (Spain), 2009
-
- AUTHORS: R.A. Álvarez-Puebla, L. Rodríguez-Lorenzo, **S. Abalde-Cela**, M. Sanles-Sobrido, P. Aldeanueva-Potel, C. Mateo-Mateo, L.M. Liz-Marzán.
TITLE: Design of hybrid materials for SERS direct and indirect sensing.
MEETING: Reunión Ibérica de Coloides e Interfases (RICI), Granada (Spain), 2009
-
- AUTHORS: **Sara Abalde-Cela**, Marcos Sanles-Sobrido, Miguel A. Correa-Duarte, Ramón A. Álvarez Puebla, Luis M. Liz-Marzán.
TITLE: Micron-sized beads coated with silver nanoparticles as discrete substrates for ultrasensitive analysis via SERS.
MEETING: Reunión Ibérica de Coloides e Interfases (RICI), Granada (Spain), 2009
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AUTHORS: C. Mateo-Mateo, **S. Abalde-Cela**, M. Correa-Duarte, R. Álvarez-Puebla, L. Liz-Marzán.
 TITLE: Magnetic functional microbeads for bioapplications.
 MEETING: II Workshop on nanomedicine research., Santiago de Compostela (Spain), 2009

AUTHORS: **Sara Abalde-Cela**, Marcos Sanles-Sobrido, Miguel A. Correa-Duarte, Ramón A. Álvarez Puebla, Luis M. Liz-Marzán.
 TITLE: Silver nanoparticle-coated microspheres as discrete substrates for ultrasensitive analysis via SERS.
 MEETING: II Workshop on nanomedicine research, Santiago de Compostela (Spain), 2009

OTHERS

- Member of **Raman4Clinics** European COST Action and **PortASAP** European COST Action.
- **Peer-reviewer:** Scientific Reports, ACS Applied Nano Materials, Applied Sciences, Analytical Chemistry, Langmuir, Analytica Chimica Acta, Sensors, Biosensors, Toxicology Reports, ACS Omega, Journal of Nanomaterials.
- **Featured in news:**
 - March 2019 – The Next Big Idea (SIC Notícias – Portuguese TV Channel) – [Youtube Link](#)
 - October 2018 – [SAPO24](#) – RUBYnanomed press release – “Aqui todos os dias se prova que o (quase) invisível aos olhos é mesmo essencial”
 - June 2017 – [Faro de Vigo](#) - NERD Mission 2017 – Bringing Science to Hospitals
 - January 2014-[Faro de Vigo](#)- ‘Premio a las horas de biblioteca y laboratorio’
 - September 2013-[Faro de Vigo](#)- ‘Gallegos en la cima-Sara Abalde-Cela’
 - December 2012-[Faro de Vigo](#) – ‘Una apuesta por la investigación y la cultura’
 - December 2012-[La Voz de Galicia](#)-‘La Diputación premia a investigadores y artistas’
- **ENTREPRENEURSHIP ACTIVITIES:**
 - CTO at [RUBYnanomed](#) spin-off (January 2017 – present)
 - **Startup Braga** (Braga, Portugal) with the RUBYnanomed project, **2017**.
 - **Resolve** (Porto, Portugal) with the RUBYnanomed project, **2017**.
 - PROMOTER of the NanoSmarTech project in **ViaGalicia (Vigo, Spain) 2015**.
 - **i-Teams** – Commercialising creativity scheme for marketing assessment– Colour-changing materials, University of Cambridge (UK), **2014**.

➤ **OUTREACH:**

- Open House INL – Braga (Portugal), 2017 – 4000 visitors.
- NERD Mission: Bringing science to hospitals – Vigo (Spain), 2017.
- High schools: Amor de Dios (Vigo, Spain), Vicente Canada Blanch (London, UK), CEIP (Tui, Spain)
- 2013 **Extraordinary PhD Award** of the University of Vigo
- **FCE Cambridge ESOL Certificate**. Score: 75% (2012)
- **Award from the ‘Diputación de Pontevedra ‘ -Best Project of Science and Technology :** ‘Ultra-detection of biomarine toxins through Surface Enhanced Raman Scattering Spectroscopy (SERS)’, April 2011, Pontevedra (Spain)
- ‘Multivariate analysis of sensitive data’ CAMO Course. 10th-12th March, 2010. Madrid (Spain)
- Ministry of Science and Education **PhD Fellowship (FPU Fellowship)**, 2010-2014, University of Vigo. Colloid Chemistry Group

REFERENCES

- For references about Sara Abalde-Cela, you can contact with:
 - Prof. Chris Abell, University of Cambridge
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 - Prof. Luis Liz-Marzán, CIC-Biomagune
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 - Prof. Alison Smith, University of Cambridge
as25@cam.ac.uk