



Janire Saez Castaño

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Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

Bachelor's degree in Chemistry in 2012 and Master's degree in Pharmacology in 2013 from the University of the Basque Country (UPV/EHU). During summer 2011 I worked as an assistant in the Department of Analytical Chemistry at the UPV/EHU developing spectroscopy methods and chemometric models for the monitoring of water samples. Between 2013 and 2014 I also made an internship at the Environment Agency (UK) thanks to a Leonardo Da Vinci Scholarship for 6 months and I worked for a short period of time in Batelle, UK where I developed chromatography methods to detect a wide range of analytes in food, soil and water samples. In 2014 I started my Ph.D. in Microfluidics titled "Integration of functional materials into microfluidic devices for fluidic control and sensing" at the CIC microGUNE (Arrasate-Mondragon), continuing in the University of the Basque Country (UPV/EHU) where I have received my Ph.D. in 2017. During this period, I have done international short research stays in University of Central Florida (4 months), Dublin City University (1 month) where I could have the opportunity to interact with people from other backgrounds such as biologists, materials engineers and delivering successful publications in high impact journals. In addition to this, I have participated in several national (Elkarkek) and European projects (FP7: NAPES).

In 2019, I started my Marie Curie Individual Fellowship where I developed organ-on-chip models to understand the role of the interstitium in cancer metastases. In Cambridge, I previously worked as a Research Associate at the University of Cambridge, under a Basque Government Fellowship and ERC H2020 project (IMBIBE), where I develop Organ-on-a-Chip platforms that aim to understand the microbiome-gut-brain axis. I wrote individual proposals for several national and European fellowships (H2020) such as Marie Curie, Basque Government Postdoctoral Fellowship, and collaborative research proposals such as RISE, ITN (H2020).

From July 2021, I joined the Microfluidics Cluster UPV/EHU as an Ikerbasque Research Fellow to create my unique research line that focuses in the Alternative Developments of Human Organ-on-Chip for Cancer Metastasis.



General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

21 peer-reviewed journal publications (Q1).

2 books (one doctoral thesis) and 2 invited book chapters.

8 Peer Reviewed Proceedings Articles (High International Relevance)

1 patent applications: ACTIVE.

14 Oral presentations (2 Invited Talks), 21 Poster Contributions. Cited in Press (Radio Euskadi, CEB News Cambridge,...)

2 PhD students doctoral thesis (in progress), 2 PhD students doctoral thesis (daily supervisor),

4 Master Students.

Awarded as PI >300.000 € so far.

Ikerbasque Research Fellow

Marie Curie Fellow

Reviewer for IEEE Sensors Conference

Review Editor of Frontiers in Electronics

Guest Editor of Sensors Journal Special Issue

Guest Editor of Polymer Journal Special Issue

**Janire Saez Castaño**

Surname(s): **Saez Castaño**
 Name: **Janire**
 DNI: **16076602Q**
 ORCID: **0000-0002-9246-0818**
 ScopusID: **57075887100**
 ResearcherID: **ABH-3567-2020**
 Date of birth: **29/08/1988**
 Gender: **Female**
 Nationality: **Spain**
 Country of birth: **Spain**
 Aut. region/reg. of birth: **Basque Country**
 Contact province: **Biscay**
 City of birth: **Barakaldo**
 Contact address: **Lekueder n7, 1C**
 Postcode: **48940**
 Contact country: **Spain**
 Contact aut. region/reg.: **Basque Country**
 Contact city: **Leioa**
 Land line phone: **944170500**
 Email: **janire.saez@ehu.eus**
 Mobile phone: **(+34) 647514716**

Current professional situation**Employing entity:** FUNDACION IKERBASQUE/IKERBASQUE FUNDAZIOA**Department:** Zoology and Animal Cellular Biology, Faculty of Pharmacy**Professional category:** Ikerbasque Research Fellow**Start date:** 01/07/2021**Type of contract:** Temporary employment contract**Dedication regime:** Full time**Previous positions and activities**

	Employing entity	Professional category	Start date
1	University of Cambridge	Marie Curie Individual Fellow	01/06/2019
2	University of Cambridge	Basque Government Postdoctoral Fellow	01/02/2018
3	University of the Basque Country (UPV/EHU)	PhD Student	16/04/2015
4	CIC microGUNE	PhD Student	09/06/2014
5	Battelle, UK	Research Technician	01/05/2014
6	Environment Agency, UK	Scientist Assistant	01/10/2013
7	University of the Basque Country (UPV/EHU)	Assistant in Analytical Chemistry Department	01/03/2011



- 1** **Employing entity:** University of Cambridge
Professional category: Marie Curie Individual Fellow
Start-End date: 01/06/2019 - 30/05/2021
Type of entity: University
Duration: 2 years
- 2** **Employing entity:** University of Cambridge
Professional category: Basque Government Postdoctoral Fellow
Start-End date: 01/02/2018 - 30/05/2019
Type of entity: University
Duration: 1 year - 4 months
- 3** **Employing entity:** University of the Basque Country (UPV/EHU)
Professional category: PhD Student
Start-End date: 16/04/2015 - 31/12/2017
Type of entity: University
Duration: 2 years - 8 months - 15 days
- 4** **Employing entity:** CIC microGUNE
Professional category: PhD Student
Start-End date: 09/06/2014 - 15/04/2015
Duration: 10 months - 6 days
- 5** **Employing entity:** Battelle, UK
Professional category: Research Technician
Start-End date: 01/05/2014 - 31/05/2014
Type of entity: R&D Centre
Duration: 30 days
- 6** **Employing entity:** Environment Agency, UK
Professional category: Scientist Assistant
Start-End date: 01/10/2013 - 30/03/2014
Type of entity: Public Research Body
Duration: 6 months
- 7** **Employing entity:** University of the Basque Country (UPV/EHU)
Professional category: Assistant in Analytical Chemistry Department
Start-End date: 01/03/2011 - 09/09/2013
Duration: 2 years - 6 months - 8 days



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

1 University degree: Master

Name of qualification: Master in Pharmacology

Degree awarding entity: University of the Basque Country (UPV/EHU) **Type of entity:** University

Date of qualification: 06/09/2013

2 University degree: Higher degree

Name of qualification: Bachelor's Degree in Chemistry

Degree awarding entity: University of the Basque Country (UPV/EHU) **Type of entity:** University

Date of qualification: 06/06/2012

Doctorates

Doctorate programme: PhD in Marine and Environmental Resources (MER)

Degree awarding entity: University of the Basque Country (UPV/EHU) **Type of entity:** University

Date of degree: 13/12/2017

Attended advanced, improvement and innovative teacher training and new technology courses and seminars focused on improving teaching

Title of course/seminar: Early Career Researchers Teach

Goals of the course/seminar: To train participants in the key skills sought after by Higher Education Institutes in course design, teaching, assessment and evaluation.

Organising entity: University of Cambridge **Type of entity:** University Research Institute

Faculty, institute or centre: Institute for Continuing Education

Duration in hours: 30 hours

Start-End date: 17/01/2019 - 25/04/2019

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
Basque	B1	B1	B1	B1	B1
English	C1	C1	C1	C1	C1



Teaching experience

General teaching experience

Name of the course: Tissue Engineering (Yearly)

University degree: Bachelor's Degree in Biology and Bachelor's Degree in Biotechnology

Start date: 01/02/2022

Entity: University of the Basque Country (UPV/EHU) **Type of entity:** University

Faculty, institute or centre: Faculty of Science and Technology

Experience supervising doctoral thesis and/or final year projects

- 1 Project title:** Interstitium on a chip to explore its role in cancer metastasis (In process)
Type of project: Doctoral thesis
Entity: Universidad del País Vasco (UPV/EHU) **Type of entity:** University
City of entity: Basque Country, Spain
Student: Gema del Rocio Lopez Buenafe
Date of reading: 01/03/2026
- 2 Project title:** Multicomponent patterning of substrates for the monitoring of mesenchymal stromal cells secretion under controlled environment (In process)
Type of project: Doctoral thesis
Entity: Universidad del País Vasco (UPV/EHU) **Type of entity:** University
City of entity: Basque Country, Spain
Student: Naiara Lartitegi
Date of reading: 01/03/2026
- 3 Project title:** Blood Brain Barrier model on a bioelectronic device for drug testing (daily supervisor)
Type of project: Doctoral thesis
Entity: University of Cambridge **Type of entity:** University
City of entity: East Anglia, United Kingdom
Student: Chiara Barbeiro
Date of reading: 30/03/2023
- 4 Project title:** Lung model on a flexible OECT device for immune response test (daily supervisor)
Type of project: Doctoral thesis
Entity: University of Cambridge **Type of entity:** University
City of entity: East Anglia, United Kingdom
Student: Sarah Barron
Date of reading: 01/03/2023
- 5 Project title:** Hydrogen peroxide-producing bioelectronic device for killing cancer cells in vitro
Type of project: Minor thesis
Entity: University of the Basque Country (UPV/EHU) **Type of entity:** University
City of entity: Basque Country, Spain
Student: Gema Lopez Buenafe



Date of reading: 30/09/2022

- 6** **Project title:** 3D bioelectrical interface to monitor the epithelial to mesenchymal transition in breast cancer in vitro
Type of project: Minor thesis
Entity: University of the Basque Country (UPV/EHU)
City of entity: Basque Country, Spain
Student: Sergio Collado
Date of reading: 20/09/2022
- 7** **Project title:** Bioelectronic Interstitium-on-a-Chip enables metastatic monitoring
Entity: University of Cambridge
Student: Mate Varga
Date of reading: 20/08/2021
- 8** **Project title:** Architecture of 3D tissues
Type of project: Minor thesis
Entity: University of Cambridge through Erasmus+ programme
City of entity: East Anglia, United Kingdom
Student: Pablo Rioboo
Date of reading: 15/03/2019
- 9** **Project title:** Ionogel-based sensor for nitrate monitoring in water samples
Entity: University of the Basque Country (UPV/EHU) **Type of entity:** University
Student: Raquel Catalan Carrio
Date of reading: 28/09/2018
- 10** **Project title:** Characterisation of thermoresponsive valves into microfluidic devices
Entity: University of the Basque Country (UPV/EHU)
Student: Aitana Martinez de Morentin Jurado
Date of reading: 25/06/2017

Scientific and technological experience

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

- 1** **Name of the project:** ADHOC-METs: Alternative Developments of Human Organ-on-a-chip for Cancer Metastases
Entity where project took place: University of the Basque Country (UPV/EHU)
Name principal investigator (PI, Co-PI...): Janire Saez
Nº of researchers: 1
Funding entity or bodies:
FUNDACION IKERBASQUE/IKERBASQUE FUNDAZIOA
Start-End date: 01/06/2021 - 01/06/2026
Total amount: 15.000 €



- 2** **Name of the project:** CART-GEL: Hidrogeles avanzados para la administración de terapias CAR-T en tumores sólidos. RIS3
Entity where project took place: BioDonostia/ UPV/EHU
City of entity: San Sebastian, Basque Country, Spain
Name principal investigator (PI, Co-PI....): Amaia Cipritia; Maria Caffarel; Lourdes Basabe Desmonts; Janire Saez
Nº of researchers: 4
Funding entity or bodies:
Departamento de Sanidad del Gobierno Vasco **Type of entity:** RIS 3
Start-End date: 01/01/2023 - 31/12/2025
Total amount: 920.000 €
- 3** **Name of the project:** Microfluidics and Biomics Cluster UPV/EHU GOVA Basque Country
Entity where project took place: University of the Basque Country (UPV/EHU)
City of entity: Vitoria-Gasteiz, Spain
Name principal investigator (PI, Co-PI....): Lourdes Basabe Desmonts; Fernando Benito Lopez; Marian Martinez de Pancorbo; Janire Saez
Nº of researchers: 10
Start-End date: 01/01/2022 - 31/12/2025
Total amount: 580.000 €
- 4** **Name of the project:** HEPHAESTOS: Physico-mechanical programming of stem cells for regenerative medicine
Entity where project took place: University of the Basque Country (UPV/EHU)
City of entity: Vitoria-Gasteiz, Basque Country, Spain
Name principal investigator (PI, Co-PI....): David Englin; Donata Iandolo; Janire Saez
Nº of researchers: 11
Funding entity or bodies:
Agence Nationale de la Recherche (ANR) **Type of entity:** State agency
City funding entity: France
Start-End date: 01/11/2022 - 31/10/2024
Total amount: 28.500 €
- 5** **Name of the project:** ChemCellTech: Micro and nanotechnology: integration strategies for the development of microsystems for chemical and cellular analysis (MINECO)
Entity where project took place: University of the Basque Country (UPV/EHU)
City of entity: Vitoria-Gasteiz,
Name principal investigator (PI, Co-PI....): Lourdes Basabe Desmonts; Fernando Benito Lopez; Janire Saez
Nº of researchers: 3
Funding entity or bodies:
Ministerio de Educación, Política Social y Deporte **Type of entity:** State agency
Start-End date: 01/07/2021 - 01/07/2024
Total amount: 1.600.000 €
- 6** **Name of the project:** IonBIKE: From New Chemistry Toward Emerging Application
Entity where project took place: University of the Basque Country (UPV/EHU)
Name principal investigator (PI, Co-PI....): David Mecerreyes
Nº of researchers: 9
Start-End date: 01/01/2019 - 31/12/2022



- 7** **Name of the project:** IMBIBE: Innovative technology solutions to explore effects of the microbiome on intestine and brain pathophysiology
Entity where project took place: University of Cambridge **Type of entity:** University
City of entity: Cambridge, East Anglia, United Kingdom
Name principal investigator (PI, Co-PI....): Roisin Owens
Nº of researchers: 4
Funding entity or bodies: ERC **Type of entity:** European Commission
City funding entity: Brussels, Belgium
Start-End date: 01/10/2017 - 30/09/2022
Total amount: 1.992.578 €
- 8** **Name of the project:** ICE-METs: Interstitium-on-Chip to explore its role in cancer metastasis
Entity where project took place: University of Cambridge **Type of entity:** University
City of entity: Cambridge, United Kingdom
Name principal investigator (PI, Co-PI....): Janire Saez
Nº of researchers: 1
Funding entity or bodies: European Commission **Type of entity:** Public Research Body
Start-End date: 01/06/2019 - 31/05/2021
Total amount: 212.933 €
- 9** **Name of the project:** Plataforma microfluidica de cribado de alto rendimiento para estudios adherentes
Entity where project took place: University of the Basque Country (UPV/EHU) **Type of entity:** University
City of entity: Vitoria-Gazteiz, Spain
Name principal investigator (PI, Co-PI....): Fernando Benito Lopez; Lourdes Basabe Desmouts
Nº of researchers: 1
Start-End date: 30/11/2016 - 29/11/2019
Total amount: 80.000 €
- 10** **Name of the project:** Ionophore Based Sensor Network, IBS-Network
Entity where project took place: University of the Basque Country (UPV/EHU)
City of entity: Vitoria-Gazteiz, Spain
Name principal investigator (PI, Co-PI....): Aleksander Radu
Nº of researchers: 1
Start-End date: 01/01/2014 - 31/12/2017
Total amount: 8.000 €
- 11** **Name of the project:** NAPES: Next Generation of Analytical Platforms for Environmental Sensing
Entity where project took place: CIC microGUNE-University of the Basque Country (UPV/EHU)
City of entity: Vitoria, Basque Country, Spain
Name principal investigator (PI, Co-PI....): Albert Schenning; Stephanie Descroix; Mark Bowkett; John Toner; Lokesh Joshi; Fernando Benito Lopez; Marco Buscaglia; Dermot Diamond
Nº of researchers: 23
Start-End date: 01/01/2013 - 30/12/2017
Total amount: 408 €



- 12** **Name of the project:** MICROCHEAP: Microtecnologías para la competitividad Industrial y Economía del Conocimiento
Entity where project took place: CIC microGUNE **Type of entity:** R&D Centre
City of entity: Arrasate-Mondragon, Spain
Name principal investigator (PI, Co-PI....): Josu Martinez
N° of researchers: 1
Start-End date: 01/01/2014 - 01/01/2015
Total amount: 403,06 €
- 13** **Name of the project:** MICROSACLE
Entity where project took place: CIC microGUNE **Type of entity:** R&D Centre
City of entity: Arrasate-Mondragon, Spain
Name principal investigator (PI, Co-PI....): Ainara Rodriguez
N° of researchers: 1
Start-End date: 01/01/2013 - 01/01/2014
Total amount: 582,37 €

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

- 1** Chiara Barberio; Janire Saez; Aimee Withers; Malavika Nair; Francesco Tamagnini; Roisin Owens. Conducting Polymer-ECM Scaffolds for Human Neuronal Cell Differentiation. *Advanced Healthcare Materials*. 2200941, pp. 1 - 12. Wiley, 29/07/2022.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 2** Janire Saez; Antonio Dominguez Alfaro; Chiara Barberio; Aimee Withers; David Mecerreyes; Roisin Owens. A 3D Bioelectrical Interface to Assess Colorectal Cancer Progression in vitro. *Materials Today Chemistry*. 28 - 100990, Elsevier, 01/06/2022.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 3** Janire Saez; Raquel Catalan Carrio; Gorka Arana; Luis Angel Fernandez Cuadrado; Fernando Benito Lopez; Lourdes Basabe Desmonts. Ionogel-based hybrid polymer-paper handheld platform for nitrite and nitrate determination in water samples. *Analytica Chimica Acta*. 1205, pp. 339753. Elsevier, 20/03/2022.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 4** Maite Garcia Hernando; Janire Saez; A. Savva; Lourdes Basabe; Roisin Owens; Fernando Benito. An electroactive and thermo-responsive material for the capture and release of cells. *Biosensors and Bioelectronics*. 191 - 113405, Elsevier, 01/11/2021.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes



- 5** Roberta Lanfranco; Janire Saez; Deborah Abati; Thomas Carzaniga; Fernando Benito Lopez; Marco Buscaglia. A microfluidic column of water index-matched packed microspheres for label-free observation of water pollutants. *Microchimica Acta*. 188 - 4, pp. doi: 10.1007/s00604-021-04804-2.. 28/03/2021.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No
- 6** Priscila Cavassin; Anna-Maria Pappa; Charalampos Pitsalidis; Henrique Barbosa; Janire Saez; Renan Colucci; Yakooov Tuchman; Alberto Salleo; Gregorio Faria. Organic Transistors Incorporating Lipid Monolayers for Drug Interaction Studies. *Advanced Materials Technologies*. 1900680, Wiley, 18/10/2019.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No
- 7** Roberta Lanfranco; Janire Saez; Fernando Benito López; Marco Buscaglia. Phantom membrane microfluidic cross-flow filtration device for the optical detection of water pollutants. *Sensors and Actuators B: Chemical*. 257, pp. 924 - 930. Elsevier, 12/11/2017.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No
- 8** Janire Saez; Alexandru Tudor; T. Glennon; J. Ducree; D. Diamond; Larisa Florea; Dermot Diamond; Fernando Benito López. Reusable ionogel-based photo-actuators in a lab-on-a-disc. *Sensors and Actuators B: Chemical*. 257, pp. 963 - 970. Elsevier, 03/11/2017.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No
- 9** Alexandru Tudor; Janire Saez; Larisa Florea; Fernando Benito López; Dermot Diamond. Poly(ionic liquid) thermo-responsive hydrogel microfluidic actuators. *Sensors and Actuators B: Chemical*. 247, pp. 749 - 755. Elsevier, 14/03/2017.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No
- 10** Janire Saez Castaño; Gorka Arana; Luis Angel Fernandez Cuadrado; Fernando Benito Lopez. Ionogel-based nitrite and nitrate sensor for water control at the point-of-need. *Procedia Engineering*. 168, pp. 518 - 521. 23/09/2016.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No
- 11** Janire Saez Castaño; Lourdes Basabe Desmots; Fernando Benito Lopez. Low cost origami fabrication of 3D self-aligned hybrid microfluidic structures. *Microfluidics and Nanofluidics*. 26/07/2016.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No
- 12** Tugce Akyazi; Janire Saez; Jorge Elizalde; Fernando Benito Lopez. Fluidic flow delay by ionogel passive pumps in microfluidic paper-based analytical devices. *Sensors and Actuators B Chemical*. 233, pp. 402 - 408. Elsevier, 05/05/2016.
Type of production: Scientific paper **Format:** Journal
- 13** Janire Saez; Jaione Etxebarria; Marta Antonana; Fernando Benito Lopez. On-demand generation and removal of alginate biocompatible microvalves for flow control in microfluidics. *Sensors and Actuators B Chemical*. 234, pp. 1 - 7. Elsevier, 26/04/2016.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No

- 14** Leire Kortázar; Janire Sáez; Elisa de Astigarraga; Naiara Goienaga; Luis Angel Fernández. Chemometrics for the classification and calibration of seawater using the H⁺ affinity spectrum. *Talanta*. 116, pp. 108 - 114. Elsevier, 2013.
Type of production: Scientific paper
- 15** Leire Kortázar; Janire Sáez; Josu Agirre; Jon Kepa Izaguirre; Luis Angel Fernández. Application of multivariate analysis to the turbidimetric determination of sulphate in seawater. *Analytical Methods*. 6, pp. 3510 - 3514. Royal Society of Chemistry, 2012.
Type of production: Scientific paper
Corresponding author: Yes
- 16** Yash Mishra; Janire Saez; Roisin Owens. Configurable Models of the Neurovascular Unit. *Engineering Biomaterials for Neural Applications*. pp. 3 - 49. Springer Cham, 29/10/2022.
Type of production: Book chapter **Format:** Book
Corresponding author: No
- 17** Tugce Akyazi; Janire Saez Castaño; Alexandru Tudor; C. Delaney; W. Francis; D. Diamond; L. Basabe-Desmonts; L. Florea; F. Benito-Lopez. Applications of Ionic Liquid Materials in Microfluidic Devices. *Ionic liquid devices*. Royal Society of Chemistry, 01/01/2018.
Type of production: Book chapter **Format:** Journal
Corresponding author: No
- 18** Leire Kortázar; Janire Sáez; Luis Angel Fernández. Chemometrics for the classification and calibration of seawater using the H⁺ affinity. Lambert Academic Publishing. Lambert Academic Publishing, 2013.
Type of production: Scientific book or monograph **Format:** Book
- 19** Charalampos Pitsadilis; Anna-Maria Pappa; Alexander Boys; Ying Fu; Douglas Van Nierkerk; Chrisanthie Moysidou; Janire Saez; Achilleas Savva; Donata Iandolo; Roisin Owens. Organic Bioelectronics for In vitro Systems. *Chemical Reviews*. 122 - 4, pp. 4700 - 4790. American Chemical Society, 01/12/2021.
Type of production: Review **Format:** Journal
Corresponding author: No
- 20** Janire Saez; Raquel Catala; Roisin Owens; Lourdes Basabe Desmonts; Fernando Benito Lopez. Microfluidics and materials for smart water monitoring: a Review (Accepted). *Analytica Chimica Acta*. 1186, pp. 338392. Elsevier, 24/02/2021.
Type of production: Review **Format:** Journal
Corresponding author: Yes
- 21** Sarah Barron; Janire Saez; Roisin Owens. In vitro models for studying respiratory host-pathogen interactions (Accepted). *Advanced Biosystems*. 2000624, Wiley, 22/02/2021.
Type of production: Review **Format:** Journal
Corresponding author: No
- 22** Jeroen ter Schiphorst; Janire Saez Castaño; Dermot Diamond; Fernando Benito Lopez; Albert Schenning. Light-responsive polymers for microfluidic applications. *Lab-on-a-Chip*. 18, pp. 699 - 709. Royal Society of Chemistry, 03/02/2018.
Type of production: Review **Format:** Journal
Corresponding author: No

Works submitted to national or international conferences

- 1** **Title of the work:** Interfacing Colon Cancer Models with Smart Bioelectronics
Name of the conference: BIOEL Winterschool
Corresponding author: Yes
City of event: Kirchberg, Austria
Date of event: 11/03/2022
End date: 18/03/2022
Organising entity: Johannes Kepler University Linz **Type of entity:** University
City organizing entity: Linz, Austria
Janire Saez; Roisin Owens.
- 2** **Title of the work:** Bioelectronic capture and release of cancer cells
Name of the conference: microTAS 2021
Corresponding author: No
City of event: Palm Springs, United States of America
Date of event: 10/10/2021
End date: 14/10/2021
Organising entity: CBMS **Type of entity:** Foundation
Janire Saez; Maite Garcia Hernando; Achilleas Savva; Lourdes Basabe Desmonts; Fernando Benito Lopez; Roisin Owens.
- 3** **Title of the work:** Determination of nitrites in real water samples using an ionogel-based hybrid polymer-paper handheld device
Name of the conference: microTAS 2021
Corresponding author: Yes
City of event: Palm Springs, United States of America
Date of event: 10/10/2021
End date: 14/10/2021
Organising entity: CBMS **Type of entity:** Foundation
Raquel Catalan Carrio; Janire Saez; Lourdes Basabe Desmonts; Fernando Benito Lopez.
- 4** **Title of the work:** Interstitium-on-chip to explore its role in cancer metastasis
Name of the conference: microTAS 2021
Corresponding author: No
City of event: Palm Springs, United States of America
Date of event: 10/10/2021
End date: 14/10/2021
Organising entity: CBMS **Type of entity:** Foundation
Janire Saez; Mate Varga; Francesca Melle; Aimee Withers; David Fairen; Roisin Owens.
- 5** **Title of the work:** PEDOT:HA and collagen-based scaffolds for electroactive monitoring of cellular processes
Name of the conference: Materials Research Society
Corresponding author: Yes
City of event: Boston, United States of America
Date of event: 27/11/2020
End date: 04/12/2020
Organising entity: Materials Research Society



Janire Saez; Antonio Dominguez; David Mecerreyes; Roisin Owens.

- 6** **Title of the work:** PEDOT:PSS/pNIPAAm Hydrogel-Based Electrodes for the Monitoring of the Capture and Release of Label-Free Circulating Tumor Cells
Name of the conference: Materials Research Society
Corresponding author: Yes
City of event: Boston, United States of America
Date of event: 27/11/2020
End date: 04/12/2020
Organising entity: Materials Research Society
Janire Saez; Maite Garcia; Lourdes Basabe; Fernando Benito; Roisin Owens.
- 7** **Title of the work:** Hybrid Scaffolds Based on PEDOT:PSS/Collagen or Carbon
Name of the conference: Materials Research Society
Corresponding author: Yes
City of event: Boston, United States of America
Date of event: 01/12/2019
End date: 06/12/2019
Organising entity: Materials Research Society
Janire Saez; Chrisanthie Moysidou; Donata Iandolo; Charalampos Pitsalidis.
- 8** **Title of the work:** Bioelectronic Organs-on-Chips for the Development and Monitoring of 3D Human Organ Models
Name of the conference: EUROOC 2019
Corresponding author: Yes
City of event: Graz, Austria
Date of event: 02/07/2019
End date: 03/07/2019
Organising entity: Graz University of Technology
Janire Saez; Charalampos Pitsalidis; Anthie-Marie Moysidou; Aimee Withers.
- 9** **Title of the work:** 3D gut-on-a-chip models with integrated microfluidics
Name of the conference: Advances in Cell and Tissue Culture Conference
Corresponding author: Yes
City of event: Cambridge, United Kingdom
Date of event: 04/12/2018
End date: 05/12/2018
Organising entity: Kirstall
Type of entity: Innovation and Technology Centres
Janire Saez. "Invited Speaker".
- 10** **Title of the work:** Towards 3D bioelectronics: Integration of conducting polymer devices with 3D models of cells in vitro
Name of the conference: 22nd Conference for Miniaturized Systems for Chemistry and Life Sciences
Corresponding author: No
City of event: Kaohsiung, Taiwan
Date of event: 11/11/2018
End date: 15/11/2018
Organising entity: CBMS
Charalampos Pitsalidis; Anthie Moysidou; Janire Saez Castaño; Roisin Owens.

- 11 Title of the work:** Label-free optical sensing of pollutants in real water samples with a phantom membrane integrated into a microfluidic device
Name of the conference: 21st Conference for Miniaturized Systems for Chemistry and Life Sciences
Corresponding author: No
City of event: Savannah, United States of America
Date of event: 22/10/2017
End date: 26/10/2017
Organising entity: CBMS
Janire Saez Castaño; Roberta Lanfranco; Marco Buscaglia; Fernando Benito Lopez.
- 12 Title of the work:** Purification of alginate encapsulated cells in a 3D printed microfluidic magnetic sorting device
Name of the conference: 21st Conference for Miniaturized Systems for Chemistry and Life Sciences
Corresponding author: No
City of event: Savannah, United States of America
Date of event: 22/10/2017
End date: 26/10/2017
Organising entity: CBMS
Janire Saez Castaño; Jaione Etxebarria; Lourdes Basabe Desmonts; Fernando Benito Lopez.
- 13 Title of the work:** New functionalities in microfluidic devices with smart functional materials
Name of the conference: Microfluidics, Physics and Chemistry of Gordon Research Conference
Corresponding author: No
City of event: Barga, Toscana, Italy
Date of event: 04/06/2017
End date: 09/06/2017
Organising entity: Gordon
Janire Saez Castaño; Tugce Akyazi; Lourdes Basabe Desmonts; Fernando Benito Lopez.
- 14 Title of the work:** Microfluidic device for monitoring sodium ions at physiological conditions
Name of the conference: European Lab on a Chip Conference
Corresponding author: No
City of event: Munich, Germany
Date of event: 10/05/2017
End date: 11/05/2017
Organising entity: Select Biosciences
Janire Saez Castaño; Fernando Benito Lopez; Parth K. Patel; Karin Chumbimuni Torres.
- 15 Title of the work:** Ionogel-based Nitrate Sensor Device
Name of the conference: IEEE Sensors 2016
Corresponding author: No
City of event: Orlando, United States of America
Date of event: 30/10/2016
End date: 02/11/2016
Organising entity: Sensors Council
Janire Saez; Gorka Arana; Luis Angel Fernandez Cuadrado; Fernando Benito Lopez.
- 16 Title of the work:** Label-free optical detection of molecular and cellular binding on reflectionless glass
Name of the conference: The 20th International Conference on Miniaturized Systems for Chemistry and Life Sciences (microTAS 2016)
Corresponding author: No



City of event: Dublin, Ireland

Date of event: 09/10/2016

End date: 13/10/2016

Organising entity: Dublin City University (DCU) **Type of entity:** University

Silvia Biffi; Giovanni Tagliabue; Marco Travagnin; D Damin; Marcelo Chiari; Shane Deegan; Maria Tijero; Janire Saez Castaño; Fernando Benito Lopez; M. Salina; Marco Buscaglia.

- 17** **Title of the work:** Next generation, in-situ microfluidic flow control using stimuli responsive materials for biomimetic microfluidic platforms
Name of the conference: The 20th International Conference on Miniaturized Systems for Chemistry and Life Sciences (microTAS 2016)
Corresponding author: No
City of event: Dublin, Ireland
Date of event: 09/10/2016
End date: 13/10/2016
Organising entity: Dublin City University (DCU) **Type of entity:** University
Simon Coleman; Amel Ben Azouz; Janire Saez Castaño; Jeffer Whyte; Jeroen ter Schiphorst; Peter McCluskey; Nigel Kent; Fernando Benito Lopez; Albert Schenning; Dermot Diamond.
- 18** **Title of the work:** Phantom Microbeads Chromatography Column in Microfluidics
Name of the conference: The 20th International Conference on Miniaturized Systems for Chemistry and Life Sciences (microTAS 2016)
Corresponding author: No
City of event: Dublin, Ireland
Date of event: 09/10/2016
End date: 13/10/2016
Organising entity: Dublin City University (DCU)
City organizing entity: Dublin, Ireland
Janire Saez; Roberta Lanfranco; Marco Buscaglia; Fernando Benito Lopez.
- 19** **Title of the work:** Temperature-controlled poly(ionic liquid) microfluidic valves
Name of the conference: The 20th International Conference on Miniaturized Systems for Chemistry and Life Sciences (microTAS 2016)
Corresponding author: No
City of event: Dublin, Ireland
Date of event: 09/10/2016
End date: 13/10/2016
Organising entity: Dublin City University (DCU) **Type of entity:** University
Alexandru Tudor; Janire Saez Castaño; Dermot Diamond; Larisa Florea; Fernando Benito Lopez.
- 20** **Title of the work:** Ionogel-based Nitrite and Nitrate Sensor for Water Control at the Point-of-Need
Name of the conference: Eurosensors 2016
Corresponding author: No
City of event: Budapest, Hungary
Date of event: 04/09/2016
End date: 07/09/2016
Organising entity: Engineering Chapter of the Hungarian Academy of Sciences
City organizing entity: Budapest, Hungary
Janire Saez; Gorka Arana; Luis Angel Fernandez Cuadrado; Fernando Benito Lopez.



- 21 Title of the work:** When Microfluidics met Smart Materials
Name of the conference: Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences (IC-ANMBES 2016)
Corresponding author: No
City of event: Brasov, Romania
Date of event: 29/06/2016
End date: 01/07/2016
Organising entity: Universitatea Transilvania **Type of entity:** University
City organizing entity: Brasov,
Tugce Akyazi; Janire Saez Castaño; Lourdes Basabe Desmonts; Fernando Benito Lopez.
- 22 Title of the work:** Smart Hydrogel Valves for Microfluidic Devices
Name of the conference: Conference of Analytical Sciences Ireland CASi2016
Corresponding author: No
City of event: Dublin, Ireland
Date of event: 14/04/2016
End date: 15/04/2016
Organising entity: National Center for Sensors Research
City organizing entity: Dublin, Ireland
Alexandru Tudor; Janire Saez Castaño; Larisa Florea; Fernando Benito Lopez; Dermot Diamond.
- 23 Title of the work:** Origami Fabrication of 3D COP-PSA Hybrid Microfluidic Devices
Name of the conference: European Lab on a Chip ELOC2016
Corresponding author: No
City of event: Madrid, Spain
Date of event: 15/03/2016
End date: 16/03/2016
Organising entity: Select Biosciences
City organizing entity: Sudbury, United Kingdom
Janire Saez Castaño; Lourdes Basabe Desmonts; Fernando Benito Lopez.
- 24 Title of the work:** Towards an Autonomous Environmental Sensors Monitoring by Interconnecting the Macro with the Microfluidics
Name of the conference: European Lab on a Chip
City of event: Madrid, Spain
Date of event: 15/03/2016
End date: 16/03/2016
Organising entity: Select Biosciences
City organizing entity: Sudbury, United Kingdom
Aymen Ben Azouz; Maria Tijero; Janire Saez Castaño; Amel Bendali; Silvia Biffi; Ionut Ichim; Giovanni Tagliabue; Roberta Lanfranca; Simon Coleman; Kepa Mayora; Mark Bowkett; Marco Buscaglia; Fernando Benito Lopez; Stephanie Descroix; Dermot Diamond.
- 25 Title of the work:** Thermo-responsive Poly(Ionic Liquid) Valves for Microfluidic Devices
Name of the conference: BioEI2016 International Winterschool on Bioelectronics
Corresponding author: No
City of event: Kirchberg, Austria
Date of event: 12/03/2016
End date: 19/03/2016
Organising entity: Johannes Kepler University Linz **Type of entity:** University
City organizing entity: Linz, Austria



Alexandru Tudor; Janire Saez Castaño; Larisa Florea; Fernando Benito Lopez; Dermot Diamond.

- 26** **Title of the work:** Ionogels as passive pumps for fluidic control in paper-based analytical devices
Name of the conference: microTAS
City of event: Gyeongju, Republic of Korea
Date of event: 25/10/2015
End date: 29/10/2015
Organising entity: ETPC
Tugce Akyazi; Janire Sáez; Jorge Elizalde; Fernando Benito.
- 27** **Title of the work:** Smart Thermal Actuation to Control Fluid Flows in Origami Fabricated Microfluidic Devices
Name of the conference: Nanoforum2016
City of event: Milan, Italy
Date of event: 29/09/2015
End date: 02/10/2015
Organising entity: Universita degli Studi di Milano **Type of entity:** University
City organizing entity: Milan, Italy
Janire Saez Castaño; Fernando Benito Lopez.
- 28** **Title of the work:** In-situ generated biocompatible alginate actuators for flow control in microfluidics
Name of the conference: Transducers
City of event: Anchorage, United States of America
Date of event: 21/06/2015
End date: 25/06/2015
Organising entity: Standford University
Janire Sáez; Jaione Etxebarria; Marta Antoñana; Fernando Benito.
- 29** **Title of the work:** Photo-switchable microvalve in a reusable Lab-On-Chip
Name of the conference: Transducers
City of event: Anchorage, United States of America
Date of event: 21/06/2015
End date: 25/06/2015
Organising entity: Standford University
Tom Glennon; Janire Sáez; Monika Czugala; Larisa Florea; Eoghan McNamara; Dermot Diamond; Fernando Benito.
- 30** **Title of the work:** Building Smarter Microfluidic Devices with Functional Materials
Name of the conference: Imagenenano
City of event: Bilbao, Basque Country, Spain
Date of event: 10/03/2015
End date: 12/03/2015
Organising entity: FUNDACION PHANTOMS, CIC nanoGUNE, DIPIC, CFM, UPV/EHU, BEC
Fernando Benito; Janire Sáez; Tugce Akyazi; Larisa Florea; Dermot Diamond.
- 31** **Title of the work:** Where Advance Materials Meet Microfluidics
Name of the conference: Nano4water 2015, Nanotechnology for water treatment
City of event: Barcelona, Catalonia, Spain
Date of event: 20/01/2015
End date: 21/01/2015
Organising entity: ACONDICIONAMIENTO TARRASENSE - LEITAT



Janire Sáez; Jaione Etxebarria; Fernando Benito.

- 32** **Title of the work:** A quantitative determination of cannabinoids in plasma and urine using gas chromatography-mass spectrometry
Name of the conference: Conference on Cannabinoids in Medicine 7th
City of event: Colonia, Köln, Germany
Date of event: 27/09/2013
End date: 28/09/2013
Organising entity: IACM
Janire Sáez; Oier Aizpurua; Jone Omar; Daniel Zuazagoitia; Patricia Navarro; Aresatz Usobiaga; Nestor Etxebarria.
- 33** **Title of the work:** Cannabinoid fingerprinting of 31 Cannabis Sativa L. varieties using high-performance liquid chromatography tandem mass spectrometry
Name of the conference: Conference on Cannabinoids in Medicine 7th
City of event: Colonia, Köln, Germany
Date of event: 27/09/2013
End date: 28/09/2013
Organising entity: IACM
Oier Aizpurua; Janire Saez; Jone Omar; Patricia Navarro; Aresatz Usobiaga; Nestor Etxebarria.
- 34** **Title of the work:** The use of chemometrics for classification and calibration of seawater using the H+ affinity spectrum
Name of the conference: ISMEC, International Symposium on Metal Complexes
City of event: Lisboa, Lisboa, Portugal
Date of event: 18/06/2012
End date: 22/06/2012
Organising entity: IST-UT
Leire Kortázar; Janire Sáez; Ainhoa Tirapu; Elisa de Astigarraga; Naiara Goienaga; Luis Angel Fernandez.
- 35** **Title of the work:** From univariate to multivariate calibration: Experiences in the analytical chemistry laboratory
Name of the conference: INTED, International Technology, Education and Development Conference
City of event: Valencia, Valencian Community, Spain
Date of event: 25/03/2012
End date: 27/03/2012
Organising entity: FUNDACION RECI-UNIVERSIDAD POLITECNICA DE VALENCIA
Leire Kortazar; Janire Sáez; Jon Kepa Izaguirre; Kepa Castro; Elisa de Astigarraga; Luis Angel Fernandez; Luis Angel Fernandez.
- 36** **Title of the work:** Seawater H+ Affinity Spectrum: A Chemometric Exercise
Name of the conference: ISMEC, International Symposium on Metal Complexes
City of event: Giardini Naxos, Italy
Date of event: 13/06/2011
End date: 16/06/2011
Organising entity: Università degli Studi di Messina
Marian Olazabal; Janire Sáez; Elisa de Astigarraga; Luis Angel Fernandez.



Other dissemination activities

- 1** **Title of the work:** Be water my friend
Name of the event: Zientzia Astea Science Festival
Type of event: Fairs and exhibitions
Corresponding author: Yes
City of event: Bilbao, Basque Country, Spain
Date of event: 11/11/2022
Organising entity: University of the Basque Country **Type of entity:** University (UPV/EHU)
City organizing entity: Basque Country, Spain
- 2** **Title of the work:** Let it flow
Name of the event: Zientzia Astea Science Festival
Type of event: Fairs and exhibitions
Corresponding author: Yes
City of event: Bilbao, Basque Country, Spain
Date of event: 11/11/2022
Organising entity: University of the Basque Country **Type of entity:** University (UPV/EHU)
- 3** **Title of the work:** Conoce a la Investigadora Janire Saez
Name of the event: Seminario invitado
Type of event: Conferences given
Corresponding author: Yes
City of event: Santurce, Basque Country, Spain
Date of event: 11/03/2022
Organising entity: Colegio/School San Francisco Javier
City organizing entity: Basque Country, Spain
- 4** **Title of the work:** Conoce a la Investigadora Janire Saez
Name of the event: Conocelas
Type of event: Conferences given
Corresponding author: Yes
City of event: Bilbao, Basque Country, Spain
Date of event: 17/02/2022
Organising entity: Asociacion Española de Investigacion Contra el Cancer ASEICA
- 5** **Title of the work:** Get to know your gut-microbiome axis
Name of the event: Cambridge Science Festival
Type of event: Fairs and exhibitions
Corresponding author: Yes
City of event: Cambridge, East Anglia, United Kingdom
Date of event: 24/03/2019
Organising entity: University of Cambridge **Type of entity:** University
- 6** **Title of the work:** Radio Interview in Zientzia Astea 2017
Name of the event: Zientzia Astea
Type of event: Media interviews



City of event: Basque Country, Spain

Date of event: 09/11/2017

Organising entity: University of the Basque Country (UPV/EHU)

"<https://www.eitb.eus/es/radio/radio-vitoria/programas/radio-vitoria-gaur-magazine/audios/detalle/5200394/audio-hoy-se-ha-inaugurado-zientzia-astea-2017-museo-bibat/>".

R&D management and participation in scientific committees

National and international forums and committees

- 1 Name of the forum:** CEB Postdoc Society
Professional category: Postdoc member
Organising entity: University of Cambridge **Type of entity:** University
Start-End date: 01/05/2019 - 30/06/2021
- 2 Name of the forum:** ANTHENA SWAN
Professional category: Committee member
Organising entity: University of Cambridge **Type of entity:** University
City organizing entity: East Anglia, United Kingdom
Start-End date: 03/02/2020 - 02/02/2021

Other achievements

Stays in public or private R&D centres

- 1 Entity:** Instituto Universitario de Materiales Poliméricos (Polymat)
City of entity: San Sebastian, Spain
Start-End date: 06/01/2020 - 05/02/2020 **Duration:** 1 month
Goals of the stay: Guest
Provable tasks: Development and characterisation of PEDOT:HA and Collagen dispersions
- 2 Entity:** Insight Center **Type of entity:** University Department
Faculty, institute or centre: Dublin City University (DCU)
City of entity: Dublin, Ireland
Start-End date: 11/03/2017 - 01/04/2017 **Duration:** 18 days
Goals of the stay: Guest
Provable tasks: Development of photoswitchable microactuators in Lab-on-a-Disc devices within the NAPES project.
- 3 Entity:** University of Central Florida (UCF) **Type of entity:** University
Faculty, institute or centre: Department Chemistry
City of entity: Orlando, United States of America
Start-End date: 30/09/2016 - 01/02/2017 **Duration:** 4 months - 2 days
Goals of the stay: Doctorate
Provable tasks: Integration of sodium selective optodes into microfluidic devices



- 4** **Entity:** Insight Center **Type of entity:** University Department
Faculty, institute or centre: Dublin City University (DCU)
City of entity: Dublin, Ireland
Start-End date: 11/05/2015 - 15/05/2015 **Duration:** 5 days
Goals of the stay: Guest
Provable tasks: Development of photo-switchable microactuators within the NAPES project.

Obtained grants and scholarships

- 1** **Name of the grant:** Basque Government Postdoctoral Fellowship
Aims: Post-doctoral
Awarding entity: Gobierno Vasco, Departamento de Agricultura, Pesca y Alimentación, Centro de Investigación y Mejora Agraria **Type of entity:** R&D Centre
Conferral date: 07/12/2018 **Duration:** 3 years
End date: 14/01/2121
Entity where activity was carried out: University of Cambridge/ University of the Basque Country
- 2** **Name of the grant:** Ikerbasque Research Fellowship
Awarding entity: FUNDACION IKERBASQUE/IKERBASQUE FUNDAZIOA
Conferral date: 10/06/2020 **Duration:** 5 years
End date: 09/06/2026
- 3** **Name of the grant:** ICE-METs: Interstitium-on-chip to explore its role in cancer metastasis
Aims: Post-doctoral
Awarding entity: European Commission H2020- Marie Curie Ind. Fellow
Conferral date: 01/06/2019 **Duration:** 2 years
End date: 31/05/2021
Entity where activity was carried out: University of Cambridge
- 4** **Name of the grant:** Congress Travel Grant
Aims: Pre-doctoral
Awarding entity: The Chemical and Biological Microsystems Society (CBMS) **Type of entity:** Associations and Groups
Conferral date: 22/10/2017
End date: 26/01/2019
Entity where activity was carried out: Microtas 2017
- 5** **Name of the grant:** Travel Grant
Aims: Pre-doctoral
Awarding entity: University of the Basque Country (UPV/EHU) **Type of entity:** Associations and Groups
Conferral date: 22/10/2017
End date: 26/10/2017
Entity where activity was carried out: Microtas 2017
- 6** **Name of the grant:** Leonardo Da Vinci Scholarship
Aims: Work experience in International Companies
Awarding entity: Confebask **Type of entity:** Associations and Groups
Conferral date: 19/07/2013 **Duration:** 10 months



End date: 28/03/2014

Entity where activity was carried out: Environment Agency, UK

7 Name of the grant: Sicue Seneca Scholarship

Aims: Specialisation Studies

Awarding entity: University of the Basque Country (UPV/EHU)

Conferral date: 15/09/2011

Duration: 10 months

End date: 30/06/2012

Entity where activity was carried out: University of Alcalá de Henares

8 Name of the grant: Outstanding Thesis Award in Science

Aims: Pre-doctoral

Awarding entity: University of the Basque Country (UPV/EHU)

Conferral date: 23/10/2020

Editorial councils

Name of the editorial council: Review Editor

Affiliation entity: Frontiers in Electronics

Start date: 05/01/2021