

ICFONians

Community News from The Institute of Photonic Sciences



LETTER FROM THE DIRECTOR

In Memoriam, Dr. Pere Mir



LLUÍS TORNER
Director



Few have the great privilege of friendships the likes of which ICFO has enjoyed with Mr. Pere Mir i Puig, president and founder of the Cellex and Mir-Puig Foundations, who passed away on March 10th at the age of 97. A Barcelona born PhD in Chemistry, he had the intellect, passion and vision to launch and build several successful companies exploiting many important patents, some of which are still used today. He was always a lover of science and passionate about innovation, firmly convinced that the future of a society depends to a large extent on research as the basis of progress and engine of economic development.

It was this inclination towards R+D combined with the desire to give back to society that led him to create the Cellex and Mir-Puig Foundations after selling all his companies at the turn of the century. Through these foundations, he became an extraordinary philanthropist of science in Catalonia. Many institutions, research centers, universities and hospitals have benefited from this generosity, and this patronage has made possible cutting edge research across a wide range of fields including, medicine, physics, chemistry, mathematics and engineering.

At ICFO, the Cellex and Mir-Puig Foundations have played an important role in helping us to develop into the research institute that we are today. Thanks to Cellex and Mir-Puig's support, in 2009 we put in motion the "Nest" Program at ICFO, a dedicated research fund to develop and support a tenure-track program to attract rising scientific stars aiming to start and lead independent research groups. In 2012, we inaugurated the Cellex NEST Building, fully financed by the Cellex Foundation. In 2015, Cellex further expanded its support by financing the Cellex ICFO-MPQ Research Fellows program by which selected postdoctoral researchers are able to work jointly at ICFO and the Max Planck Institute for Quantum Optics.

Mr Mir was discreet, preferring that his foundations and the scientists they support were the centre of attention while he remained out of the public eye. He set an exceptional example of philanthropy and commitment to science, with a personality characterized by its great vitality and optimism. He had an inexhaustible curiosity and passion for knowledge, matched by the immense affection he had for the many friends his wife Nuria and he had.

Our institution is a central part of his legacy. He was very proud of us. You, ICFOians, your passion, your dedication, your achievements made him happy many times over the years.

We will miss him very much and at the same time, we will continue to promote his values and ideals even more enthusiastically than ever.

ICFO's new building will most proudly carry his name.

COVER



This edition of *ICFOians* is dedicated to Dr. Pere Mir i Puig, in gratitude for his friendship, support and generosity which have been crucial in making ICFO the institute that it is today.

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ICFO NEWS



2016 EDMUND OPTICS EDUCATIONAL AWARDS

■ Bárbara Buades Sabater, PhD student in the Attoscience and Ultrafast Optics research group led by ICREA Prof. at ICFO Jens Biegert, is the recipient of the Bronze 2016 Edmund Optics Educational Award for Europe that recognizes “outstanding undergraduate and graduate optics achievements” in optics-related areas. Barbara is researching ultrafast electron dynamics at a sub-femtosecond scale to understand how sensors and transistors work and how energy is stored.

2017 “MANUEL RICO” – BRUKER NATIONAL PRIZE

■ ICREA Prof. at ICFO María García-Parajo is the recipient of the Bruker-National Prize for senior scientists from the Spanish Biophysical Society. The jury cited “...her outstanding scientific work on the development of advanced optical techniques for the study of biological, dynamic processes at the single molecular level on living cells”.

AWARDS FOR ICFO'S DIRECTOR

■ The achievements of Lluís Torner, Director at ICFO, have recently been recognized by various entities. He received the National Research Award (Premis Nacionals de Recerca) from the Foundation for Research and Innovation of Catalonia (FCRi) and the Government of Catalonia, which he dedicated to all ICFOnians and, especially, to the generous support of Dr. Pere Mir and his foundations. The Catalan Association of Telecommunication Engineers and the Official College of Telecommunications and IT Engineers of Catalonia have also awarded Torner the Salvà i Campillo Award, citing his role in leading ICFO to become an internationally recognized leader in its field.

PROOF OF CONCEPT GRANT

■ ICREA Prof. at ICFO Niek van Hulst has been awarded funding for the IBIS (In-line Balanced Interferometry Scattering) project through the ERC's Proof of Concept Grant program that helps ERC grantees explore the innovation potential of their research and/or commercialize the results of their ERC-funded projects. Van Hulst is the recipient of two consecutive Advanced Grants from the ERC. Notably, this PoC award is the seventh successful PoC application for ICFO in six years.

BARCELONA INSTITUTE OF SCIENCE AND TECHNOLOGY: IGNITE GRANTS



■ In the framework of the BIST Founding Conference, the five winning proposals for the first BIST Ignite call were announced, providing funding to multidisciplinary research involving at least two groups working in different BIST centers. The project proposals, selected by an external scientific committee, show multidisciplinary approaches to solving new or unsolved questions, promoting the cross-fertilization across disciplines, and providing new insights to push the collaboration forward. ICFO Profs. Javier García de Abajo and Valerio Pruneri will work with researchers from ICN2 on a project entitled Near-Infrared Graphene Optoelectronic Devices with Atomically Controlled Nanostructures. ICFO Research Fellow David Merino, in the team led by Dr. Pablo Loza-Alvarez, will work with researchers from ICN2, IFAE, and the Barraquer Ophthalmological Center on a project titled “Towards the implementation of a multi-electrode array for retinal prosthesis”.

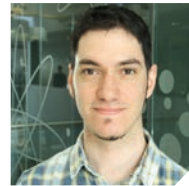
MC MUTUAL AWARD FOR RISK PREVENTION

■ In an effort to recognize companies that demonstrate their commitment to offering a safe and healthy workplace, MC Mutual awards the “Antonio Baró” prize every year. This year in the XV edition of the prize, ICFO was one of fourteen companies recognized for the effective management of safety as well as the protection of the health of people in the workplace.

ICFO NEWCOMERS



María Jesús Moreno
Finance



Albert Ros Lucas
Corporate Communication



Adeel Afridi
PhD Student



Nestor Bareza
PhD Student



Matteo Bernardello
PhD Student



Nina Fleischmann
PhD Student



Stefano Grava
PhD Student



Darío Lago Rivera
PhD Student



Valeria Venturini
PhD Student



Remy Avila Foucat
Postdoctoral Researcher



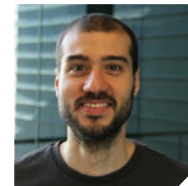
Przemyslaw Grzybowski
Postdoctoral Researcher



Enric Gutiérrez
Postdoctoral Researcher



Emilio Pisanty
Postdoctoral Researcher



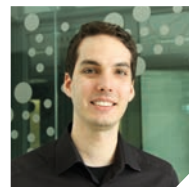
Iñigo Ramiro
Postdoctoral Researcher



Daniel Rodrigo
Postdoctoral Researcher



Themistoklis Sidiropoulos
Postdoctoral Researcher



Tobias Steinle
Postdoctoral Researcher



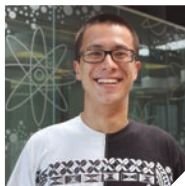
Felix Tebbenjohanns
Research Engineer



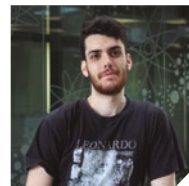
Arantxa Albornoz
Research Engineer



Klemen Bravhar
Research Engineer



Robin Camphausen
Research Engineer



Albert Capdevila
Student



Albert Cardenete
Student



Yaoming Chu
Student



Lorenzo Colombo
Student



Mario Marcos García
Student



Nadia Milders
Student



Júlia Oriol
Student



Matej Sebek
Student



Lluc Sendra
Student



Martina Pesaresi
Visiting PhD Student



Iacopo Torre
Visiting PhD Student



Daniel Cano Reol
Visiting Scientist



Martin Leahy
Visiting Scientist



Ding Liu
Visiting Scientist



Carlo Manzo
Visiting Scientist



Martí Perarnau
Visiting Scientist

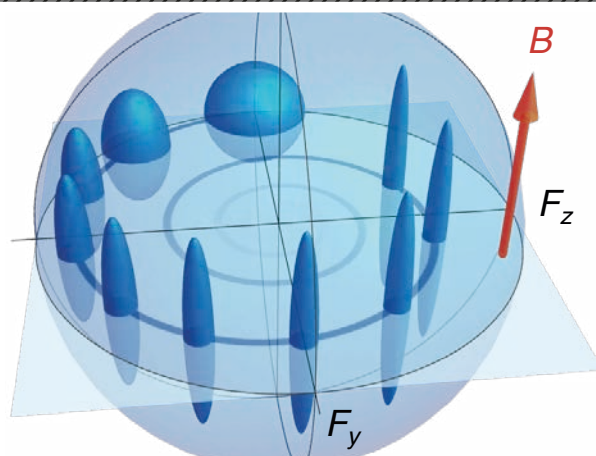


Antonio Picon
Visiting Scientist

Many of us joined ICFO or took a new position at the Institute between January and March.

Welcome to ICFO!

LATEST ADVANCES



SCIENTISTS EVADE THE HEISENBERG UNCERTAINTY PRINCIPLE

■ The sensitivity of certain measurements was long thought to be limited by Heisenberg's uncertainty principle, which states that accurately measuring, for example, one property of an atom, puts a limit to the precision of measurement you can obtain on another of its properties. This long-standing expectation has now been disproven by ICFO researchers Dr. Giorgio Colangelo, Ferran Martin Cjurana, Lorena C. Bianchet and Dr. Robert J. Sewell, led by ICREA Prof. at ICFO Morgan W. Mitchell. In their study, published in *Nature*, they report on the discovery of a new technique that could drastically improve the sensitivity of instruments such as magnetic resonance imagers (MRIs) and atomic clocks. The technique bypasses the Heisenberg uncertainty principle, hiding the quantum uncertainty in atomic features not seen by the instrument, and thus allowing the scientists to make very high precision measurements.

OPTO-MECHANICAL COMPONENTS BUILT WITH 3D PRINTING

■ In a recent *PLOS ONE* study, researchers Dr. Luis Jose Salazar-Serrano, and UPC Prof. at ICFO Juan P. Torres, in collaboration with ICFO Alumnus Dr. Alejandra Valencia, Prof. at the Universidad de los Andes, Colombia, report on the development of a set of opto-mechanical components made with a 3D printer based on Fused Filament Fabrication (FFF) and parts that can be easily found in any hardware store. These opto-mechanical elements are key ingredients of many photonic setups, both for scientific research as well as for industrial manufacturing. These results would enable a rapid growth of the photonics communities, help reduce the increasing costs of fabrication processes, and facilitate the access to cutting-edge research.

QUANTUM DOTS AND 2D MATERIALS FOR SWIR/MID IR HYBRID DETECTORS

■ Existing technologies, in particular those that extend beyond 2 microns, are very costly, non-integrated to CMOS electronics and most of them require thermoelectric cooling to reduce thermal noise. In a recent paper, published in *Advanced Materials*, ICFO researchers Nengjie Huo and Shuchi Gupta led by ICREA Prof. at ICFO Gerasimos Konstantatos, demonstrate a new class of SWIR/Mid IR hybrid detectors achieved at room temperature, which are based on CMOS compatible material platforms such as top-surface detectors. They combine synergistically the unique properties of 2-D semiconducting transistor channels made of MoS₂, demonstrating high carrier mobility and low off (dark) current, strong and tunable absorption of colloidal HgTe quantum dots. The results of this study are paving the way for low cost, low footprint and low power consumption yet highly sensitive SWIR/mid-IR detectors.

BICS IN NATURE PHOTONICS

■ Bound states in the continuum (BICs) are confined waves within a continuum spectrum of radiation that do not radiate at all. Their existence defies conventional wisdom. They have been used in a wide variety of material systems such as photonic crystals, optical waveguides and fibers, quantum dots, and acoustic materials. In a recent paper published in *Nature Photonics*, ICFO researchers Dr. Jordi Gomis and Dr. David Artigas, led by UPC Prof. and ICFO Director Lluís Torner, have developed a mechanism based on wave-guiding structures that contain anisotropic birefringent materials, which affords the existence of BICs with fundamentally new properties. This opens a new pathway towards the development of new trapping and confinement techniques with BICs, with a significant use for the advancement of wave-based technologies.

RESEARCH EXCELLENCE

Ten years of the ERC:
A European success story

Some 7,000 top researchers have received support in Europe through the European Research Council (ERC) to expand the frontiers of knowledge and draw us nearer to solutions to pressing problems. This support has already led to important breakthroughs.

The ERC, established by the European Union in 2007 to support excellent researchers in Europe, has backed scores of researchers, including six who later received Nobel Prizes. The ERC grants have also created career opportunities for some 50,000 research staff, resulted in numerous scientific breakthroughs and led to over 800 patent applications that lay the foundations for growth and jobs, and the improvement of people's everyday lives. The ERC encourages great researchers to follow their scientific curiosity. By doing so, they have helped to put Europe on the map for important scientific discoveries.

ICFO has been particularly successful in its efforts to secure ERC funding and is the top recipient of ERC grants in Spain for a center of its size. This support has played a crucial role in our growth over the past 10 years, helping us to grow from a young, ambitious research center just recently installed in our purpose built facility in Castelldefels, into an internationally recognized center of research excellence. Through 25 ERC grants awarded to researchers at ICFO to date, the EU has given wings to ambitious high risk- high impact projects.



On the occasion of the tenth anniversary of the ERC, Commissioner for Research, Science and Innovation Carlos Moedas said: "When the European Union acts boldly, wonderful things happen. The European Research Council, part of the EU's Horizon 2020 programme, is proof of it. In its first ten years, the ERC has funded almost 7,000 research champions across Europe to pursue their best ideas. Beyond the academia, innumerable people are already benefitting from the positive impact of the ERC and its funded discoveries."

The President of the ERC, Prof. Jean-Pierre Bourguignon, said: "For the past ten years the European Research Council has supported high-quality research projects proposed by ambitious scientists. Their endeavours have a positive impact on thousands across Europe. ERC grants led to many scientific breakthroughs, such as the recent discovery of potentially inhabitable planets beyond the solar system. There is ample proof that the ERC is fulfilling the mission it was given to make Europe the place to be for the world's best brains."

KNOWLEDGE AND TECHNOLOGY TRANSFER



A Spotlight on Graphene in Barcelona

Two major graphene related events within less than one month underscore the wealth of graphene R+D activity taking place in the Barcelona area.

Starting with the **Mobile World Congress 2017**, which took place in Barcelona at the beginning of February, the city has recently been in a whirlwind of graphene-related activity, with ICFO playing a prominent role in showcasing graphene-related advances. The **Graphene Experience Zone** at GSMA's Mobile World Congress 2017, organised by the European Graphene Flagship and curated by ICFO, attracted a steady and considerable stream of visitors coming to see and experience how graphene can make a difference in tomorrow's digital technologies. Subsequently, the largest European event in Graphene and 2D Materials, Phantoms Foundation's **Graphene Conference 2017**, took place in the city less than a month later, underscoring the wealth of graphene research and development activity taking place in the Barcelona area. ICFO and ICN2 acted as scientific organizers for the latter event, with UCL – Université Catholique de Louvain and IIT – Italian Institute of Technology, participating in the organizing committee as expert institutions.

GRAPHENE EXPERIENCE ZONE IN MWC17

This year the Graphene Experience Zone, now in its second edition, grew in dimensions (165 m²). It showcased 20 applications and prototypes from 26 industrial and academic partners of the Graphene Flagship, which were grouped into five main technological areas. This conceptual organization emphasized for attendees how graphene and related materials can be applied in the mobile ecosystem; to enable fast data communications, improve energy technologies, develop sensing devices for the Internet of Things, as well as wearable biomedical devices for wellness and health. ICFO presented several demos that showed how graphene could broaden vision by sensing in light outside the visible spectrum. In particular, the institute drew visitor's attention with a car collision-avoidance system that integrated a night vision infrared sensor. In addition, they demonstrated a biometrics sensor integrated in a wearable patch capable of monitoring the user's heart rate in real time.

The Graphene Experience Zone received 19 tours, including both the NEXTech and Women4Tech tours organised by GSMA. In addition, several key attendees, including European Commissioner Andrus Ansip, GSMA Ltd. CEO John Hoffman and several members of the Catalan government, were shown graphene applications that were particularly illustrative of the potential that this material will have in future technologies.

In parallel to the exhibition, the Graphene Flagship also held a **Graphene Connect workshop**, starting with a keynote talk given by 2010 Nobel Laureate Konstantin Novoselov, who shared his groundbreaking experiments on graphene with the audience. The aim of this workshop was to provide an opportunity for the mobile community to explore the benefits and potential of graphene and related materials, bringing together academic and industry representatives and offering networking opportunities to facilitate possible future collaborations.

This year and for the first time, GSMA launched the Youth Mobile Festival (YoMo Barcelona), which ran in parallel to the Mobile World Congress, geared toward engaging children and inspiring them to pursue education and careers in science, technology, engineering, art and math (STEAM) disciplines. Graphene Flagship partners ICFO and IIT presented Graphopolis, an interactive workshop designed to collectively create an interactive sound map of a city using graphene contact sensors made by Novalia.

+ INFO ▶ #GrapheneMWC #MWC17



GRAPHENE CONFERENCE 2017

■ During the last week of March, the 7th edition of Graphene Conference gathered over 900 scientific and industry experts from more than 45 countries at the Barcelona International Convention Center (CCIB) to discuss and focus on integrating new graphene technologies into current applications.

During this 4-day conference, which began with a special welcome event for invited speakers that was co-organized and sponsored by the Barcelona City Council, attendees had the opportunity to listen to approximately 90 prestigious keynote and invited talks and more than 150 oral presentations. Top class speakers included Prof. Andre Geim, winner of the 2010 Nobel Prize with Konstantin Novoselov for their experiments that demonstrated that carbon in such a flat form has exceptional properties that originate from the remarkable world of quantum physics.

The general conference included two parallel events focused on industry and technology transfer. On one hand, the Industrial Forum aimed at connecting the academic world with industry to discuss the latest advances in graphene-based technologies as well as market opportunities for this material. On the other hand, a Brokerage event promoted one-to-one meetings, aiming to encourage companies, universities and research centers to foster technical cooperation in the field.

Attendees had the opportunity to visit the exhibition area and interact with both local and international participants, including booths where companies and research institutes like ICFO were presenting graphene-based technologies. Among the exhibitors, stands from Canada, Malaysia and China were present to show the initiatives that these countries are devoting to the development of technologies based on this material.



COMPOSITES AND PRODUCTION

DATA COM

MWC TOUR!
Emerging Tech Tour

ICFO

ENERGY

IOT AND SENSORS

WEARABLES AND HEALTH

OUTREACH



The Graphene Corner at YoMo

■ ICFO participated with great success in **YoMo**, The Youth Mobile Festival organized by GSMA in parallel to the Mobile World Congress. This event aimed to inspire and help young students to learn more about careers in science, technology, engineering, art, and math (STEAM) disciplines in the context of an increasingly mobile world. ICFO, in collaboration with its Graphene Flagship partner IIT, hosted one of YoMo's largest stands: **The Graphene Corner**. Students had the opportunity to learn about the properties, applications and history of this 2D material through a set of appealing visual banners and videos, and a hands-on activity. Students were asked to envision how graphene could be used to solve everyday problems or in activities related to their hobbies and passions. Using graphene-based touch panels made by Novalia, they collectively built a sound map of an imaginary city: GRAPHOPOLIS. This effort to engage the public with graphene continues in the classroom with the graphene educational content developed by ICFO for teachers. Overall, 240 students and 30 teachers participated in the activity.

The imagination and creativity of the students was evident through some of the ideas they came up with, such as a rope for rock-climbing with sensors, using graphene to build infrastructures in areas with high level of earthquake activity, or creating graphene eyeglasses that self-regulate.



PHABLABS 4.0



PHABLABS 4.0: a new project that adds the power of photonics to Fab Labs

■ ICFO has embarked on a new pan-European outreach project called PHABLABS 4.0, coordinated by our ECOP partner VUB and in which ICFO leads one of the work packages. This project aims to inspire young minds, future generations of technicians, engineers and entrepreneurs by making photonics accessible through the wider ecosystem of Fab Labs in Europe. For this European project, 11 partners and institutes in photonics join forces with 14 pilot Fab Labs.

The underlying goal of PHABLABS 4.0 is to bring photonics know-how, photonic tools and the opportunity to use them all within the framework of Fab Labs. This translates into the development of workshops covering different photonics related topics that will be offered by the local partnering Fab Labs. In addition, the project will provide the Fab Labs with photonic tools and devices, such as a 3D printer for transparent objects, lenses, and other light-based components. To encourage the use of these photonic tools using the know-how gained through the workshops, a set of photonics challenges will be organized across all the partnering Fab Labs. This project started in December 2016 and will run for 30 months.

+ INFO ► fablabbcn.org

■ **A FAB LAB** is a technical prototyping platform for education, innovation and invention. To be a Fab Lab means connecting to a global community of learners, educators, technologists, researchers, makers and innovators - a knowledge sharing network that spans 50 countries and 24 time zones. Because all Fab Labs share common tools and processes, the program is building a global network, a distributed laboratory for research and invention.



BEYOND ICFO



Jon Donner

“If I could talk to myself in 2009 I would give myself this advice: Get out of your comfort zone- talk to anyone you can about your challenges, learn about other PhD’s projects down to the smallest details...”

The bumpy beginning: In 2008, my wife was accepted to the IESE MBA program. This meant that I had to find something useful to do for two years in Barcelona. I sent an e-mail straight to ICFO’s director, Lluís Torner himself, explaining why I wanted to go to his institute. He politely referred me to HR. They sent me a mail informing me that, “...Nevertheless... there are no vacancies available”.

This was a problem. After a few months, through some divine intervention, Prof. Romain Quidant contacted me with an opportunity.

I was accepted! Without knowing anyone who had been to ICFO, I wasn’t sure what to expect. I figured that worst-case scenario, I could always leave after a week or a month. Five years later, I defended my thesis. In addition to learning a lot in different fields, I have great memories and close friendships.

Fast forward: Today I live in Israel, and am the proud father of three (yes 3!): Layla (night), Sahar (moon) and Nur (light). I kite surf, grow my own vegetables, and have built an extra room by myself to increase the size of our cozy (== small) home. I have

founded a startup - *nanofabrica* – that does high-resolution 3D printing. We have a second-generation prototype in its final development stages. We have sales to over 20 customers. We got a grant from the local innovation center and are applying for two PCTs. We will soon start the process of fundraising and applying to top accelerators.

ICFO Impact: There are many different kinds of PhD experiences. In my PhD I learned and acquired many tools needed for my current work, aside from gaining technical knowledge in optics. The ability to

work on a hard project with many variables, not knowing how close you are to succeeding, the ability to cut my losses and change directions, prioritizing, clearly communicating complex messages, and lots more. In addition, I acquired a kind of general knowledge in technology, which allows me to talk to technical professionals (now mainly customers) from different fields, understand their problems and try to help them.

Tips: If I could talk to myself in 2009 I would give myself this advice: Get out of your comfort zone- talk to anyone you can about your challenges, learn about other PhD’s projects down to the smallest details (also from other groups). Be more efficient with your time, probably by spending more time planning and analyzing your work (don’t do even one experiment if you don’t understand, analyze and learn from it). Try to stay curious about your work, and remember how cool it really is. Know that being at ICFO is a privilege. Just think that in el Café de la Llum you wait in the line for coffee next to world famous experts in cutting edge fields. What a waste it is to stand next to GLs and not ask about the future of their field! Lluís always talks about getting the most out of ICFO. What a great concept! This idea should also be implemented after ICFO, to get the most out of anything you do.

ALUMNI NEWS

Two ICFO Alumni have recently received honors for their research.



■ **Dr Goutam Kumar Samanta**, who did his thesis work under the supervision of ICREA Prof. at ICFO Majid Ebrahim-Zadeh, received the Gallieno Denardo Award from the International Commission for Optics and the International Centre for Theoretical Physics. Samanta was recognized for his significant contributions to the field of nonlinear optics, lasers and quantum optics, as well as his efforts in popularizing science among school students in India.

■ **Dr Parisa Farzam**, who did her thesis work under the supervision of ICREA Prof. at ICFO Turgut Durduran, received the Translational Research Award by SPIE at Photonics West 2017. This award recognizes research that introduces novel optical technologies with high potential to impact health care. Farzam’s research was focused on the improvement of intracranial pressure (ICP) monitoring using diffuse correlation spectroscopy (DCS).

*Send us your news: contact@alumni.icfo.eu

GO & FLY

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women and men have successfully defended their theses at ICFO since its founding in 2002. Together they have helped us measure what we have learned, how far we have come, and how much we have yet to learn. The following ICFOnians have recently succeeded in defending their PhD theses. Honoring ICFO’s tradition, ICFOnians gather together to celebrate your accomplishments and encourage you to Go & Fly! Remember that wherever you go, you will always be a part of the ICFO community.



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February 14
2017

ADAM VALLÉS

Entanglement, Bell’s Inequalities and Coherence: New Ideas and New Scenarios

TD: Prof. Dr. **Juan Pérez Torres**



129
March 2
2017

ALBERTO SOSA

Insights on the Spation-Temporal Organization of Integrins and their Ligands Using Quantitative Biophysicac Tools

TD: Prof. Dr. **María García-Parajo**



130
March 24
2017

CLAUS LINDNER

Translation of Non-Invasive Optical Measurements of Hemodynamics and Oxygen Metabolism to the Clinic

TD: Prof. Dr. **Turgut Durduran**



131
March 24
2017

EMANUELE DISTANTE

A Quantum Light-Matter Interface with Rydberg Polaritons in a Cold Atomic Ensemble

TD: Prof. Dr. **Hugues de Riedmatten**

HIGH PROFILE



Pablo Amor:

“I cannot think of a better space to act on behalf of Europe than the ERC, where we select and fund the ideas that can change the world and the people that are dreaming them up.”

Pablo Amor has successfully built his career around international scientific collaboration. Having worked within the European Commission in varying capacities related to international cooperation and science management, he joined the European Research Council Executive Agency (ERCEA) in 2009 before becoming its Director in 2012.



You have built your career around international scientific collaboration. Can you tell us why you followed this path and why you think this is important?

The invisible hand and my personal technical background in engineering brought me, many years ago, to a Directorate General of the European Commission dedicated to funding research. From then on, it is history and I never looked back. Interacting with the most talented scientists, observing first hand their curiosity and inner motivation, is the best incentive to come to work every day. I cannot think of a better space to act on behalf of Europe than the ERC, where we select and fund the ideas that can change the world and the people that are dreaming them up.

What would you say is a challenge that you have been most pleased to see resolved during your tenure with the European Research Council?

I am clearly most proud of having helped to build the European Research Council from its very begin-

nings. Although the thrill and challenges of the first project evaluations have now led to a much more stable and professional organisation, the main driver of funding excellent research solely, is still there. This basic idea is closely linked to the need for an excellent administration that supports the grantees and their science. This is what we have built, here, at the ERC Executive Agency, the implementing arm of the ERC. All our efforts have converged to the establishment of a well-known brand and today the ERC is a clear synonym with excellence in science. This is not an easy accomplishment and I feel enormously proud of all that work in this endeavour.

What are the challenges on the horizon?

There are many challenges ahead of us. Among theme, I would cite the changing landscape of science with its drive towards open science, the current geopolitical instability and the ancillary budgetary clouds that it brings with it. However, given the importance of investing in science for our common future, I remain confident: we will find creative solutions to these challenges.

What is the secret to the ERC’s success?

Once again, the simplicity of its model is a key factor for its success. The ERC only funds the best ideas and the most talented researchers willing to do their research in Europe. To support them, we have worked hard to build a lean and mean organization that is as light, in administrative terms, as possible. The secret also lies in always keeping in mind that the ERC is run by scientists and with scientists in mind. The interplay between the scientists and the agency staff is truly unique and a key ingredient for its success.

The ERC is celebrating its 10th birthday this year. Where is it headed and where might we see it on its 20th birthday?

We just held an enriching workshop in Brussels on this particular topic. The answer by and large basically consists in continuing to do more of the same, while avoiding complacency, which is a big risk of highly successful organizations like ours. We should never forget the reason for our existence and continue to do things in faster, simpler and better ways. If we can keep this path, I predict an even brighter future for the ERC.

CHALLENGE

SUDOKU

1	6	7			3			9
	2	4	5			3	1	
3				9		6		
				3	5	9	2	
			2	8				
	7	1	4	6				
		5		8				2
	4	2			7	1	9	
6			3			5	8	7

		7	5					
8		5						
	2			8			5	3
9					6	2	3	
		4		3		9		
	6	2	7					8
6	8			4			7	
						1		2
					1	4		

MYSTERY ICFONIAN

How much do you know about the people you work with? ICFOnians are a fascinating group, with hobbies, interests and abilities you may never have guessed. You may share a lab, a bus ride home or even lunch with other ICFOnians, but there is undoubtedly more to the picture than meets the eye. To help you get to know each other better, have a look around and see if you can guess this edition's **Mystery ICFonian**. Look for the answer in next edition's Challenge section!



1. Someday he hopes to become a chef
2. In his free time he plays on an ultimate Frisbee club team in Barcelona
3. He would like to visit every baseball stadium in the USA
4. He is not a swimmer
5. He dreams of going to see the penguins in Antarctica
6. As a kid he wanted to be a pilot

Ed. #30(Fall) solution: Mercedes Santacana Puig (Front Desk)

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