CURRICULUM VITAE PROF. VÍCTOR F. PUNTES

Part A. PERSONAL INFORMATION

First and Family name	Victor Franco Puntes		
Social Security, Passport, ID number	43421815T	Age	52
Researcher numbers	**Researcher ID**	F-8407-2013	
	Author ID	6602156792	
	ORCID code	0000-0001-8996-9499	

A.1. Current position

Name of University/Institution	Institut Catala de Nanociencia i Nanotecnologia		
Department	Inorganic Nanoparticles		
Address and Country	Campus UAB 08193 Bellaterra		
Phone number	(+34) 699044219	E-mail	victor.puntes@vhir.org
Current position	ICREA Research Professor	From	2005
Key words	Nanochemistry, Inorganic Nanoparticles, Energy, Environment and Health		

A.2. Previous positions (research activity interuptions, indicate total months)

Initial Date	Institution	Position
2000 (24 M)	U**niversity of California, Berkeley** (Berkeley, CA, USA)	Teaching Assitant at the Physics Department
2000 (40 M)	U**niversity of California, Berkeley** (Berkeley, CA, USA)	Scientific Staff at College of Chemistry
2003 (30 M)	University of Barcelona	Ramon y Cajal Researcher
2005 (till present)	**Institució Catalana de Recerca I Estudis Avançats** (Barcelona, Spain)	*Group leader & Research Professor*
2005(till present)	**Institut Català de Nanociència i Nanotecnologia** (Barcelona, Spain)	*Group leader of the Inorganic Nanoparticles Group*

A.3. Education

Degree/PhD	University	Year
PhD in Physics	Universitat de Barcelona	1998
Chemical Engineer	Université Louis Pasteur	1994
Licenciado en Química (Bachelor of Science in Chemistry)	Universitat Autònoma de Barcelona	1994

Victor Puntes is an ICREA research professor with join appointments at the Institut Català de Nanociència Nanotechnologia (ICN2, since 2005), group leader of the inorganic nanoparticles group, and at the Vall Hebron Research Institute (VHIR, since 2015), group leader of the nanoparticle design and pharmacokinetics group.

Prof. Puntes graduated in chemical engineering from Louis Pasteur University (Strasbourg) and Chemical Sciences for the UAB (Bellaterra) in 1994 and received his PhD in Physics from the University of Barcelona in 1998. Between 2000 and 2004, he held a postdoctoral position as a postdoctoral researcher at the University of California-Berkeley (UCB) and the Lawrence Berkeley National Laboratory (LBNL), in the groups of Prof. Kannan Krishnan first, and Prof. Paul Alivisatos second.. In 2003 he obtained a position as a Ramón y Cajal researcher at the University of Barcelona. In 2005 I was awarded and ICREA position and created the Inorganic Nanoparticles Group at the ICN2 and in 2015 the Design and pharmaciokinetics of nanoparticles laboratory at VHIR. Since January 2022, he is also a member of the Network Research Center for Bioengineering, Biomaterials and Nanomedicine (CIBER-BBN).

To January 2024, Victor Puntes is co-author of more than 300 publications in international peer-reviewed scientific journals (majorly first quartile). He has received more than 26,000 citations (>11,400 in the last 5 years) and an H factor of 71* (*part of is bibliographic records are under Victor Franco or Victor Puentes naming).

Prof. Dr. Puntes has participated in 57 research projects as PI) funded by the European Union, the Government of Spain and private companies, launching numerous collaborations with national and international groups, and participating in interdisciplinary panels and cooperation projects in the following medical areas: hepatology (steatosis, fibrosis and liver cancer), ophthalmology (age-related macular degeneration), obstetrics (preeclampsia), infectious diseases (AIDS and AMR), digestive (irritable bowel syndrome), neurological (epilepsy/Dravet syndrome), radiology (safe contrast) CT scan agent and radiotherapy enhancers) and cancer (CAR-T cell immunotherapy for chronic lymphocytic leukemia). The collaborative strategy has been to propose a wide range of nanoparticle-based tools and design a particular set of them to address a specific problem of the real interests of doctors (and patients). He has coordinated two ERA-NET Euronanomed I (CONCORD) and III (CELLUX) call projects. He has given 80 invited talks in conferences and seminars

Prof. Puntes has been involved in various technology transfer activities, launching 4 spin-off companies (Endor Nanotechnolgies, Nanotargeting, Applied Nanoparticles, and Panaceria) and generating 12 patents, 4 of them licensed. He has also acted as a scientific consultant (Nanonica, Aegle Biomedical, SERENADE). Regarding the impact on innovation, I would like to highlight two works. First, the controlled synthesis of AuNPs. We published the synthesis in 2011. Then CAN GmbH hired Dr. Bastus, from my lab part-time for a year to teach them how to replicate the synthesis during her postdoc in Hamburg. CAN began commercializing them. CAN[1] was a spin-off that has since been absorbed by Fraunhofer. Simultaneously, as the synthesis was not patented and experts could reproduce it following the article, Applied Nanoparticles also commercialized it. One of their clients has been PINA-TEC[2], a German startup that uses gold with antibodies for biological detection in lateral flow assays (similar to those for flu or COVID). Note that the article is a recipe and has over 1.700 citations; it is currently the worldwide recipe for making AuNPs of customizable size at high concentrations. Regarding iron oxide nanoparticles for biogas production, we patented it, published it, created a spin-off, and were sponsored by Repsol. We also worked for Agbar for two years. However, we eventually abandoned the project because the cost of producing iron NPs cannot compete with fossil fuels; energy is still way too cheap. A few years ago, we independently published the story of the discovery[3], along with another group in 2014, a few months later than us. Since then, a number

[1] https://www.iap.fraunhofer.de/en/research/CAN.html
[2] http://pina-tec.de/en/baustelle-english/
[3] https://www.frontiersin.org/articles/10.3389/fceng.2021.745610/full

of EBTs (Entrepreneurial Biotech Companies) have emerged commercializing the product, closely following our narrative. Examples include Aegle-technology[4] i Calpech[5].

He also actively contributes to several R&D management activities and scientific committees as in the Working Group 9 of the nanosafety cluster, dedicated to nanosafety by design, or the advisory board of serenade-labex.

He regularly participates in training activities and teaches Master's courses in material sciences (UAB), nanotechnology (UAB) and immunology (UB) in addition of forming PhD. The PIs have extensive experience in training and mentoring students, which have been translated into supervision tasks within the Spanish system and intra-European level. In detail, Prof. Puntes has supervised 17 Ph.D. thesis (6 more ongoing) and 18 postdocs. Besides, in the framework of NanoTOES, PANDORA and ENDONANO (Initial Training Networks-MCSA) and QualityNano (PanEuropean Union-funded infrastructure project) the PIs have co-supervised a total of 19 students.

Associated with the chemistry department of the UAB, he regularly participates in training activities and teaches Master's courses in material sciences and nanotechnology, and he is listed as tutor available for the department PhD programs, as he participates in the thesis committee of several students and the corresponding yearly evaluation and guidance. Prof Puntes has supervised 18 PhD thesis and 8 more currently ongoing. He also regularly participate in public awareness and communication events, in local media[6] and national, about our work or related work[7] Besides, I am is normally engaged in dissemination lectures and activities as participating in the 10menos9 festival, nit de la recerca, festa de la ciència, he created part of the exhibition Tecnorevolució at CosmoCaixa, Nanowiki and a number of presentations on the subject of the intersection between the sciences and arts, with special atention to Science and Songs[8]), a show that we perform regularly around the city in small, and often public, venue).

Significant infrastructure. The group has full equipment of the nanoparticles synthesis both in aerobic and anaerobic conditions. In house nanoparticle synthesis, manipulation and characterization equipment: UV-VIS, DLS, Z-Potential, centrifugation and dialysis machine. WE also have a high power microwave digestor and a ICP-MS analyzer. Moreover, VHIR offers to its researchers different centralized services (Core Facilities) aimed at supplying them with specialized support, as most of scientific disciplines require some extremely complex and costly tools to carry out more advances research procedures. These services include: Lab Animal Service, High Technology Unit, Statistics and Bioinformatics Unit, Clinical Trials Pharmacy, Clinical Research Support Unit, Biobank, and the Academic Research Organization. Similarly, ICN2 has a range of facilities providing the group access to advanced characterization techniques such as SQUID, TEM (HAADF, EELS, EDX), SEM, XRD.

[4] https://aegle-technology.es/
[5] https://www.calpech.com/nanopart%C3%ADculas-de-hierro
[6] https://ics.gencat.cat/ca/detall/noticia/HUVH_Desenvolupen_nanoparticules_polaritzadesor
[7] NeCLAS, una nueva herramienta para descubrir dónde y cómo las nanopartículas se unen a las proteínas (gacetamedica.com)
[8] www.scienceandsongs.org

- **EDUCATION**

1998 PhD Solid State Physics, **Universitat de Barcelona**, (Barcelona, Spain)

1994 Chemical Engineer, **Université Louis Pasteur** (Strasbourg, France)

1991 BSc in Chemical Science, **Universitat Autònoma de Barcelona**, (Barcelona, Spain)

- **CURRENT POSITION(S)**

2015 – present *Group leader of the Design and Pharmacodynamics of Nanoparticles Group*

Vall d'Hebrón: Institut de Recerca (Barcelona, Spain

2005 – present *Group leader of the Inorganic Nanoparticles Group*

Institut Català de Nanociència i Nanotecnologia (Barcelona, Spain

2005 – present *Group leader & Research Professor*

Institució Catalana de Recerca I Estudis Avançats (Barcelona, Spain)

- **PREVIOUS POSITIONS**

2003 – 2005 *Ramón y Cajal Researcher*

University of Barcelona, (Barcelona, Spain)

2000 – 2002 *Scientific Staff at the College of Chemistry*

U**niversity of California, Berkeley** (Berkeley, CA, USA)

2000 – 2001 *Teaching Assistant at the Physics Department*

U**niversity of California, Berkeley** (Berkeley, CA, USA)

- **FELLOWSHIPS AND AWARDS**

2021 The CAS President's International Fellowship Initiative for visiting scientist 2021 2 month 88.000 renminbi (6770 euro).

2019 The CAS President's International Fellowship Initiative for visiting scientist 2019 2 month 88.000 renminbi (6770 euro).

http://international-talent.cas.cn/front/pc.html#/bicsite/pifiIntroduce/pifi

2017 World Biogas Association Research Project *Biogas Plus* Award

2016 Applied Nanoparticles. Among the best 100 spin offs (out of 16.350) South Summit 2016

2014 Award received "Premio fondo de emprendedores III", Fundación Repsol

2013 Award received "Premio fondo de emprendedores II", Fundación Repsol

2013 Award received "Premios Iberoamericanos a la Innovación y el Emprendimiento" from Secretaría General Iberoamericana (SEGUIB)

2003 – 2005 *Ramón y Cajal ResearcherFellowship (1st in the Material Science category).*

Department of Fundamental Physics , Universitat de Barcelona (Barcelona, Spain)

1999 – 2000 *Postdoctoral Researcher (Spanish Fellowship) at the National Center of Electron Microscopy.* Lawrence Berkeley National Laboratory (Berkeley, CA, USA)

1994-1998 *Predoctoral Fellowship*, Spanish Program on Scientific Training

Department of Fundamental Physics**,** University of Barcelona,

- **TEACHING ACTIVITIES (selection)**

2008 – present Diagnostic and therapy, Master in Nanotechnology, **Universitat Autònoma de Barcelona** (Barcelona, Spain)

2013-2017 Lecturer (Professor) - Master in nanoinnovation of the **University of Texas** Austin.

2014- present Lecturer (Professor) – Biomedicine, Master in Translational Medicine, **UAB Vall d'Hebró Instiut de Recerca** (Barcelona, Spain)

2009 Lecturer (Professor) – Master in Biomedicine, **University of Salzburg**.

2008 – 2014 *Associate Professor* – Chemistry, **Universitat Autònoma de Barcelona** (Barcelona, Spain)

2000 – 2002 Teaching Assistant at the Physics Department, **UC Berkeley** (USA)

He regularly participates in training activities and teaches Master's courses in material sciences (UAB), nanotechnology (UAB) and immunology (UB) in addition of forming PhD. The PIs have extensive experience in training and mentoring students, which have been translated into supervision tasks within the Spanish system and intra-European level. In detail, Prof. Puntes has supervised 17 Ph.D. thesis (6 more ongoing) and 18 postdocs. Besides, in the framework of NanoTOES, PANDORA and ENDONANO (Initial Training Networks-MCSA) and QualityNano (PanEuropean Union-funded infrastructure project) the PIs have co-supervised a total of 19 students.

- **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

2006 – present Prof. Puntes has supervised 17 Ph.D. thesis (6 more ongoing) and 18 postdocs in addition to 12 master graduates. Besides, in the framework of NanoTOES, PANDORA and ENDONANO (Initial Training Networks-MCSA) and QualityNano (PanEuropean Union-funded infrastructure project) the PIs have co-supervised a total of 19 students.

THESIS COMPLETED (2012-2023)

1. *Designing Advanced Nanocatalysts: Synthesis of complex CeO_2-based Nanostructures.*. March 24th, 2023. *UB*. **Dr. Carmen Hervés Carrete.** Victor Puntes / Neus G. Bastús. FPU Competitive Fellow.
2. *Towards Translational Nanobiotechnology: Biomedical Applications Of Noble Metal Nanoparticles*. **Dr. Muriel Freixanet**. November 3rd, 2022. UAB. Victor Puntes. FIS Competitive Fellow.
3. *Engineering Stöber Silica Nanoparticles*. Dr. **Oscar Moriones Botero.** October 28th, 2022. *UAB.* Victor Puntes, Neus G. Bastús. FPI Competitive Fellow.
4. *Functionalization of carbon nanostrucutres by inorganic nanocrystals and potential applications.* **Dr. Jana Oliveras**. May 30th, 2022. Victor Puntes, Neus G. Bastús. FI-AGAUR Fellow.
5. *Physicochemical characterization of the evolution of metal nanoparticles in biological and environmental media.* **Dr. Francesco Barbero**. December 13th, 2019. UAB. Victor Puntes, Neus G. Bastús. MCSA-ITN Competitive Fellow.
6. Control and synthesis of cerium oxide nanoparticles for medical applications. **Dr Ignacio Salvo.** January 25th, 2019. UAB. Victor Puntes.
7. *Exploring New Synthetic Strategies for the Synthesis of Advanced Complex Nanoparticles*. **Dr. Javier Patarroyo.** Novembre 16th, 2018. UAB. Supervisor. Victor Puntes.
8. *Advanced Synthesis and Characterization of Noble Metal Nanoparticles*. **Dr. Jordi Piella**. Novembre 8th, 2018. UAB. Victor Puntes.
9. *Dynamics of Nanoparticle-Protein Corona: Formation, Evolution, and Insight on Protein Structure*. **Dr. Michele Vitali.** March 16th, 2018. U. Milano. Victor F. Puntes.

10. *Increasing the resolution at the nano-bio interface with engineering inorganic nanoparticles.* **Dr. Sofia Rubio.** September 23th, 2016. UAB. Supervisor: Victor Puntes.
11. *Synthesis, kinetic control and properties engineering of cerium oxide nanoparticles for biomedical applications.* **Dr. Tetyana Yúdina.** June 17th, 2016. UAB. Victor Puntes.
12. *The Life of Nanoparticles in Contact with Biological Media and Entities*. **Dr. Ngoc Tran.** October 17th, 2014. UAB. Victor Puntes. MCSA-ITN Competitive Fellow.
13. *Introducing Gold Nanoparticle Bioconjugates within the Biological Machinery*. Dr. Lorena Garcia. July 19th, 2013. UAB. Supervisor: Victor Puntes
14. *Gold Nanoparticles as Drug Delivery Agents: Detoxifying the Chemotherapeutic Drug* Cisplatin. Dr. Joan Comenge. July 18th, 2013. UAB. Victor Puntes.
15. *Synthesis of Nanoparticles and Nanostructured Materials by Self-Assembly*. Dr. Miriam Varon. May 31st, 2012. UAB. Supervisor: Victor Puntes.
16. *Reactivity and Impact of Inorganic Nanoparticles in Biological Environments*. Dr. Eudald Casals, January 20th, 2012. UAB. Supervisor: Victor Puntes
17. *Gold Nanoparticles Conjugates for Biological Applications.* Dr. Neus Bastús, December 2008. UB. Supervisor: Victor Puntes

THESIS ONGOING. **1) Karen Mejia.** New Nanocrystal-based catalysts with extended sunlight absorption for the efficient Solar-to-Hydrogen conversion. *UAB*. Victor Puntes / Neus G. Bastús. FPI Competitive Fellow. **2) Cristiane Casonato**. Designing of metal nanoparticles conjugates for the detection and removal of endotoxin. *Universitat Salzburg*. Victor Puntes / Neus G. Bastús. ITN Competitive Fellow. **3) Steven Ouma Ahenda.** Development of inorganic nanomaterials for environmental remediation applications. Victor Puntes / Neus G. Bastús. FI-AGAUR Competitive Fellow. 4) **Lena Montaña.** Deriving Cerium Oxide Nanoparticles of OS in neuroinflammatory pathologies. UAB. Victor Puntes. VHIR Competitive Fellow. **5) Joana Ramis**. Nuevas estrategias antioxidantes para el tratamiento multimodal de la preeclampsia. UAB. Victor Puntes. PERIS Competitive Fellow. 6) **Ramon González.** Developing ionizable lipid nanoparticles for NP delivery. FPI Competitive fellow. Victor Puntes.

Associated with the chemistry department of the UAB, he regularly participates in training activities and teaches Master's courses in material sciences and nanotechnology, and he is listed as tutor available for the department PhD programs, as he participates in the thesis committee of several students and the corresponding yearly evaluation and guidance. Prof Puntes has supervised 18 PhD thesis and 8 more currently ongoing. He also regularly participate in public awareness and communication events, in local media[9] and national, about our work or related work[10] Besides, I am is normally engaged in dissemination lectures and activities as participating in the 10menos9 festival, nit de la recerca, festa de la ciència, he created part of the exhibition Tecnorevolució at CosmoCaixa, Nanowiki and a number of presentations on the subject of the intersection between the sciences and arts, with special atention to Science and Songs[11]), a show that we perform regularly around the city in small, and often public, venue).

RRI We would like to note that since the inception of our labs, we have been following responsible research and innovation (RRI) principles. And thus we dedicated significant efforts to study nanotoxicity and nanosafety (EU nanosafety cluster and 6-7 EU nanosafety projects) as prior. Among diverse initiatives it outstand our price and code of conduct of the group spin off Applied Nanopartilces (2013 -). We would like

[9] https://ics.gencat.cat/ca/detall/noticia/HUVH_Desenvolupen_nanoparticules_polaritzadesor
[10] NeCLAS, una nueva herramienta para descubrir dónde y cómo las nanopartículas se unen a las proteínas (gacetamedica.com)
[11] www.scienceandsongs.org

also to highlight the code of conduct we developed for Applied Nanoparticles S.L. and the related awarded document Spining off under RRI principles[12].

Scientific or professional development of graduate doctors.
As a result of a successful training and guidance program, and indicative of the high quality of the scientific research performed by the group, one of the major achievements of the group is the competitive scientific carrier of the former Ph.D. students and postdocs of the group, all of them employed.

Our most recent PhD students are currently following postdoctoral studies. Carmen Herves is at U. Vigo with Prof. Luis Liz-Marzan, Muriel Fraixenet is at ICN2 with Dr. Bastus and member of TRANSCERIA-MAT team, Dr. Jordi Piella is Marie Sklodowska-Curie Individual Fellows at Langhammer group, Chalmers University of Technology (Sweden), Dr. Javier Patarroyo is now postdoctral fellow at KAUST (Saudi Arabia). Others of them are working in related industries. Dr. Michele Vitali, a postdoc at Eindhoven university is working at Ardena, a leading nanomedicine developer, as a senior scientist. Dr. Oscar Moriones **is now Researcher at** Nanoscientifica *Scandinavia* AB (Sweden). Sofia Rubio is medical scientific liaison in oncology at Ipsen, and Tetyana Yudina head of project at Aigües de Barcelona. Francesco Barbero has secured a faculty position at the university of Torino.
We would also like to take the opportunity of some of the people trained at our lab. Dr. Ralph Sperling is now Head of Group Nanoanalytics at Fraunhofer ICT-IMM (Mainz). Dr. Stephani Lim, professor at University of Boston. Dr. Eudald Casals, that after PhD in our lab, joined in 2014 the Åbo Akademi University (Finland) funded by a Beatriu de Pinós Fellowship (AGAUR) and July 2016, a Juan de la Cierva Fellowship (MICINN, Spanish Government). In 2018 he obtained a chair of a distinguished professorship at Shen-Zen University (China). Dr. Joan Comenge was a Marie Curie postdoctoral researcher at the University of Liverpool (UK) for 4 years. Later, he was Scientific Head of Nanotargeting S.L.., a spin off derived from our group 10 years ago. He is currently postdoc at CIBER-BBN under the supervision of Prof. Puntes (Spain) and member of TRANSCERIA-BIO. Dr. Socorroo Vazquez is PI at LEITAT technological center, EU expert in nanosafety. Dr. Isaac Ojea, currently Policy Officer at the EU commission on the DGT-ENV of research in Brussels. Dr. Ana Garcia currently at the radiology service of Hospital Marañon in Madrid. Dr. Miriam Varon is now Researcher Engineers at the Technical University of Denmark. Dr. Lorena Garcia-Fernandez is now Researcher at LEITAT Technological Center (Spain). Dr. Markus Martinic is now project manager at VHIR. Dr. Laura Mondragon is now Ramon y Cajal researchers at Josep Carreras.

INSTITUTIONAL RESPONSIBILITIES

2020-Present Committee on RRI at the Vall Hebron Research Insitute (VHIR)

2014-Present Scientific Committee Vall Hebron Research Insitute (VHIR)

2011-2013 Scientific Director of the Center for NanoBioSafety and sustainability (CNBSS) www.cnbss.eu

2009-Present Member of a Committee; communication and safety at work, Institut Català de Nanociència i Nanotecnologia (Barcelona, Spain).

2007-Present Scientific Comitee, Institut Català de Nanociència i Nanotecnologia (Barcelona, Spain)

2005-Present Faculty member, ICREA Research Professor

- **COMMISSIONS OF TRUST**

2016-Present Nanosafety by Design working group of the EU Nanosafety Cluster (lead by Eva Valsami-Jones).

[12] https://rri-tools.eu/-/spinning-under-rri-principles-applied-nanoparticles-case

2014-present Editorial board Cancer Nanotechnology, Springer.

2013-Present Nanoimmunology and nanoimmunotoxicology working group of the EU Nanosafety Cluster (lead by Diana Boraschi)

2013-2022 Scientific Advisory Board, Labex SERENADE, France Panel member

2013- Present Member of the jury of the Barcelona City Council Award on Technology

http://www.bcn.cat/cultura/premisciutatbcn/2014/index.shtml

2012-Present Chair of the Nanonica Prize on Nanotechnology Breakthrough of the year. www.nanonicaprize.org, since las year co-organized by the Fondazione Bassetti.

2007-2016 Editorial Board JCIS (Journal of Colloid and Interface Science), Elsevier.

2007-Present Reviewer, FP7 NMP and the Catalan, Spanish, French, Argentinian funding agencies.

2006-Present Scientific Advisory Board, Nanotargeting, Spain, a company dedicated to the development of drug delivery systems. www.nanotargeting.eu/

2005-Present Scientific Advisory Board, Nanonica, Switzerland, a company dedicated to invest on nanotechnology. www.nanonica.com

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES.**

2016 Member of the nanotechnology in food group of the Spanish Food Safety Administration Agencia Española de Consumo, Seguridad Alimentaria y Nutrición (AECOSAN)

2011 – 2015 Member, Research Network Bio-inspired nanotechnologies: from concepts to applications COST Action TD 1003

2005 – 2008 Member, Spanish Research Network Magnetic Nanoparticles for nanomedice

2006 - 2009 Member, Spanish Research Network Nanostructured Materials

2005 – Present Member Spanish Microscopy Society

2007 – Present Member Catalan Physics Society

10 Most cited publications in which Prof. Puntes is the first author or corresponding author.

1. V Puntes, KM Krishnan, AP Alivisatos. *Colloidal nanocrystal shape and size control: the case of cobalt.* **Science** 291 (5511), 2115-2117, 2001. (3128 citations)
2. NG Bastús, J Comenge, V Puntes. *Kinetically controlled seeded growth synthesis of citrate- stabilized gold nanoparticles of up to 200 nm: size focusing versus Ostwald ripening.* **Langmuir**, 27 (17), 11098-11105, 2011. (1759 citations).
3. E Casals, T Pfaller, A Duschl, GJ Oostingh, V Puntes. *Time evolution of the nanoparticle protein corona.* **ACS nano**, 4 (7), 3623-3632, 2010. (1267 citations).
4. S Carrettin, P Concepción, A Corma, JM López Nieto, VF Puntes *Nanocrystalline CeO2 Increases the Activity of Au for CO Oxidation by Two Orders of Magnitude* **Angewandte Chemie** International Edition 43 (19), 2538-2540 (1009).
5. NG Bastús, F Merkoçi, J Piella, V Puntes Synthesis of highly monodisperse citrate-stabilized silver nanoparticles of up to 200 nm: kinetic control and catalytic properties Chemistry of Materials 2014, 124, 12874-12880.
6. VF Puntes, D Zanchet, CK Erdonmez, AP Alivisatos. Synthesis of hcp-Co nanodisks. **J Am Chem Soc**, 124 (43), 12874-12880, 2002. (834 citations)
7. E González, J Arbiol, VF Puntes. *Carving at the nanoscale: sequential galvanic exchange and Kirkendall*

growth at room temperature. **Science***,* 334 (6061), 1377-1380, 2011. (669 citations)

8. R Barrena, E Casals, J Colón, X Font, A Sánchez, V Puntes. *Evaluation of the ecotoxicity of model nanoparticles.* **Chemosphere** 75 (7), 850-857, 2009. (625 citations)

9. J Piella, NG Bastus, V Puntes Size-Controlled Synthesis of Sub-10-nanometer Citrate-Stabilized Gold Nanoparticles and Related Optical Properties. **Chemistry of Materials** 28 (4), 1066-1075. 2016. (493 citations)

10. Marcelo J Kogan, Neus G Bastus, Roger Amigo, Dolors Grillo-Bosch, Eyleen Araya, Antonio Turiel, Amilcar Labarta, Ernest Giralt, Victor F Puntes. Nanoparticle-mediated local and remote manipulation of protein aggregation **Nano letters** 2006, 6 (1), 110-115 (404 citations).

- **RESEARCH MONOGRAPHS AND BOOKS (SELECTED).**

V. Puntes, **"Nanoparticles Before Nanotechnology"**. (downloads/prints: 18.041)
ISBN 978-84-695-6677-0. edited by Nanowiki http://goo.gl/U2E3P
V. Puntes, **"Nanotechnology: balancing the promises (medicine vs toxicity)"**. (downloads/prints: 2.033)
ISBN 978-84-615-3293-6. edited by Nanowiki http://goo.gl/2U6rQ
V.Puntes **"Nanomaterial Interfaces in Biology"**. ISBN 978-16-2703461-6 edited by Springer

V,Puntes "**Nanotecnologia en Medicina**" edited by transmedical ed. ISBN 978-84-941494-0-5

*E. Gonzalez y V. Puntes **Arquitectura del Nanocosmos**" ISBN 978-958-46-1469-8 edited by Nanocitec,Co*

Victor Puntes **"Handbook of Clinical Nanomedicine: From Bench to Bedside"** ISBN 978-981-43161-7-0 edited by Pan Stanford, US

Comming soon **N anosafety by Design.**

- **SELECTED INTERNATIONAL CONFERENCE INVITED PRESENTATIONS.**

xxii. *Nanoceria against malignant metabolism*. Invited talk at Nanobiology: NanoTechnology for Better Life

Shenzen Institute of Advanced Technology, **Shenzen,** Guandoung, China. (5 Sept 2023)

xxi. *The nanoparticle toolbox for medicine*. Invited Seminar at Biology department of Wuyi University, **Jiangmen**, Guandoung, China. (14 Sept 2023)

xx. *Repeated Topical Administration of 3 nm Cerium Oxide Nanoparticles Reverts Disease Atrophic Phenotype and Arrests Neovascular Degeneration in AMD Mouse Models* NANAX 10, **View**, Austria (3-7 July 2023)

xix. *Where have all the microplastics gone?* GRK NANOHYBRID Conference, **Hamburg** Germany (June 2022)

xviii. *Nanosafety by design from the lab to the market* **A stakeholder's perspective of safe and sustainability by design (SSbD)** conference. Invited presentation and panelist round table 18th february (2022)

xvii. *Epilepsia, inflamación y microbiota,* Congreso internacional sobre CDKL5, **Burgos** (13 Nov 2021)

xvi. *Cerium oxide nanoparticles as co-adjuvant to manage epilepsy*. 3rd International Congress on Dravet Syndrome and Refractory Epilepsy **Bilbao** (18 June 2021)

xv. *The nanoparticle toolbox for medicine.* Invited seminar at National Institute of Pharmaceutical Education and Research (NIPER), Hajipur, India (13 May 2020)

xiv. *The use of CeO2NPs as anti-neuroinflammatory agents.* 2nd international congress on Dravet syndrome and refactory epilepsy **Bilbo** (4-5 Oct 2019)

xiii. *The synthesis of metal-metaloxide heterodimers*. NANAX 9 Nanocrystals for Nanoscience

Hamburg (17-19 sept 2019)

xii. *The colors of the void. Optical responses of Au hollow NPs*. 6th NANOTODAY conference

Lisbon (16-20 Juny 2019)

xi. *Nanotechnology approaches to the treatment of Epilepsy* 1st international congress on Dravet syndrome and refactory epilepsy **Bilbo** (3-4 Oct 2018)

x.- *Nanoparticles as building blocks for self assembled nanostructures.* Invited talk at Colloquium **IRTG University Berlin.** Berlin, Germany (July 2016).

ix.- *Measuring Nanoparticles.* Nanometry France 2016. **Paris**, France (June 2016)

viii.- *Inorganic nanopartiles as tool-box for medicine.* Invited talk at Drug formulation, Solubility & bioavailability, Novotel Barcelona city. **Barcelona**, Spain (May 2016)

vii. *Spinning off under RRI principles.* Invited talk and organizer at NaNaX7: 7th event of the Nanoscience with Nanocrystals international conference series **Marburg**, Germany (April 2016)

vi.- *Mechanistic Insights into the controlled nucleation and growth of metal and oxide inorganic nanoparticles synthesized in wate*r. **University College Dublin**. Dublin, Ireland (February 2016)

v.- Time evolution of the NP Protein Corona **ACS Boston** (August 2015)

iv.- 248th **ACS Denver** National Meeting Functionalization of Complex Nanostructures (2015),

iii.- Nanotechnology in Health: Gold Nanoparticles as Radiotherapy Enhancers. Invited talk at CHUV RadioOncology Department Invited Seminar. **Lausanne,** Switzerland (January 2014).

ii.- *Nanoceria* NaNaX 6 Nanoscience with nanocrystals, **Bad Hofgastein,** Austria (April 2014).

i.- *Size and Shape control of inorganic NCs.* **SPIE San Francisco**, (January 2013).

- **SELECTED ORGANIZED CONFERENCES.**

- In September 27th 2018, Prof. Puntes has organized and chaired the conference "**The use of CeO_2 Nanoparticles in the context of channelopathies, neuroinflammation and epilepsy**" at the CIBBIM-VHIR (Barcelona). This conference gathered scientists working in the field of the use of CeO_2 nanoparticles for medicine.

- Chairman of the **International Conference on Nanomedicine and Nanobiotechnology** (ICONAN 2017), held in Barcelona in 2017, September 25-27th and organized and sponsored among others by the Royal Society of Chemistry. This conference chaired by Prof. Puntes had the participation of more than 30 international renowned scientists in the scientific committee and 12 plenary speakers among other figures.

- Nanoscience with Nanocrystal Nanax 7 This is the most specialized Nanocrystal event in Europe, were world leaders on the field as Paul Alivisatos, Chris Murray, Paul Wise, Warren Chan, Francesco Stellachi or Nicolas Kotov, among other regularly participate.

- B-Debate Nanotechnology in Health. Prof. Puntes was chairman in the organization of this very prestigious Scientific Conferences, in this case on nanomedicine. We succed in bringing to Barcelona people as Pr. Piotr Grodzinski Director Nanoiniciative of the National Cancer Institute, Marina Dobrovolskaia, from the SAIC-Frederick Inc laboratory of the Nanotechnology Characterization Lab (NCL); Ruth Duncan as representative of the EMA or Kostas Kostarelos as nanomedicine pioneer among many other.

- CNBSS I organize two specialized meetings of nano and society, the first one, **The Age of Efficiency** (2011), about nano and sustainability, and the second one, **Re-Thinking Nano**, about new learnings to design future nanotechnology (2012). www.cnbss.eu

- **Symposium Q on Nanobiomedicine at the EMRS 2014,** Organizer with Rapha Levy, Dan Peer, Catherin Murray and Genevieve Pourroy. Lille 2014

- **EXAMPLES OF LEADERSHIP IN INDUSTRIAL INNOVATION OR DESIGN.**

Co-founder of several spin offs in addition to several contracts with industry.

- (2024- present) Panaceria. Medical Nanoceria, *Co-founder and Scientific Director*,

- (2013-present) **Applied Nanoparticles** *Co-founder and Scientific Director*, spin off company of the ICN2 and UAB sponsored by Fundación Repsol. Prize Top 11 StartUp South Summit 2016. This company is dedicated to bring nanotechnology solutions to Energy and the Environment, and with a long-standing record of recognitions and awards, including the Entrepreneurship Fund of Repsol Foundation in both categories (idea

-2013- and innovation -2014-). Recently, Applied Nanoparticles has placed its first product based on patent PA2, BioGAS+, into the market while it has won an European prize on Responsible Research and Innovation and the Research Project Award by the World Biogas Association (2017).

- 2009-2012: **Centre for BioNanosafety and Sustainability (CNBSS),** *Scientific director*. Dedicated to the investigation, analysis, co-development and education of nanotechnology with responsibility (following Responsible Research and Innovation –RRI- Principles). The CNBSS was an initiative of Catalan Institute of Nanotechnology (ICN) and the LEITAT Technological Centre, in response to the emerging need to rationalise and assess the risks of new nanotechnologies and to promote it safe and sustainable uses in industry and for the society in general.

- 2005-present: **Endor Nanotechnologies**, (currently Endor Technologies) *Co-founder* a company dedicated at cosmetics and nanobiomedicine. Prof. V. Puntes pioneered the nanotechnology and knowledge transfer in Barcelona Area and Spain, already in 2007, by funding what today constitutes ENDOR Nanotechnologies.

- 2007-present: **Nanonica,** *Scientific Advisor*, Swiss based company dedicated to invest on nanotechnology.

- 2009- 2022: **Nanotargeting**, *Scientific Advisor*, start-up company, Spain, dedicated to the development of our patent on cisPt delivered with AuNPs.

V. Puntes has been providing designed NPs to the WRAIR and the Unité Interactions Hôte-Pathogenes for the development of prophylactic vaccines against malaria and anthrax, and therapeutic against micobacteria, as providing reference standard materials to a number of EU projects under H2020, indeed we are currently spinning off the production of nanoparticles via AppNPs, what strongly links laboratory work with industrial production via the creation of reference materials.

- **PATENTS.**

1 Multifunctional Ceria-Based Nanoparticles as Contrast Agents for X-ray Imaging and Radioprotection in Theranostics (patent pending)

2 Ophthalmic topical composition with ceria nanoparticles for treating diseases of posterior segment of the eye. **P5443EPOO/ WO2022219050A1.** 10/20/2022

3 Mesoporous silica wrapped nanoparticle composite material, preparation method thereof, and use thereof **US Patent App. 17/847,142,** 2022

4 Antimicrobial Composite Materials Maspoch Comamala; Franco Puntes; Imaz Gabilondo; Gomez Bastús; Boix Soler; Han Xu; Moriones Botero; Montserrat Llagostera. eP 21382884.1 / WO/2023/051248 /PCT/EP2022/077073 WO/2010/046377. 30/09/2021.

5 Water Purification Method. Priority Application number: **EP19382968.6** 06/11/2019

6 Bi-Functionalized nanoparticles, process for its preparation and uses thereof. Priority Application number: **EP19382675.7,** 02/08/2019

7 Ceria nanoparticles for use in the treatment of hepatocellular carcinoma. System, method and uses for "in situ" treatment or prevention of antimicrobial resistant or biofilms infections. **WO/2017/149381A1**. 08/09/2017

8 System for thermotherapy treatment or prevention of antimicrobial. **WO/2017/149378A1**. 08/09/2017.

9 Biogas production. **WO/2012/123331.** 20/09/2012.

10 Platinium/Silver noble metal single wall hollow nanoparticles and their preparation process Spain. **WO/2012/123435**. 20/09/2012.

11 Conjugates comprising nanoparticles coated with platinum-containing compounds. **WO/2010/069941**. 24/06/2010.

12 Immunoactivating conjugates comprising nanoparticles coated with peptides. **WO2010046377A2** 29/04/2010.

- **FUNDED PROJECTS**

1 **INCERIA**. A new formulation of cerium oxide nanoparticles as adjuvant for retinal anti-angiogenesis therapy Indústria del Coneixement. Producte. 2023-PROD00200 (AGAUR) 150.000 € 2024-2025.

2 Nuevos sistemas de inmunoanálisis automatizados para la detección de alérgenos en alimentos Consejo de Administración del Centro para el Desarrollo Tecnológico y la Innovación (CDTI) IDI-20230493. 2023-2024, 60.000 €

3 **CIBER BBN.** Utilidad de las nanopartículas de óxido de cerio en enfermedades hepáticas e intestinales consecuencia de una desregulación metabólica y asistencia a la regeneración hepática. Call 2020. ISCIII c.a. 68.252 €/ year - sine die.

4 **SOLHYCAT.** Carbon Materials as Charge Transfer Platforms to Convert Sunlight into Fuel with a Nanocrystal-Molecular Catalyst hybrid. BIST Ignite Project 2020-2021. 20.000 €

5 **AFRODITA**. Multimodal multifunctional pro-angiogenic and anti-oxydant nanoparticles targeting altered vasculature during the course of preclampsia. (2019-23) ISCIII. 180.000 €

6 **ECLIPSE**. New Nanocrystal-based Catalysts with Extended Sunlight Absorption for the Efficient Solar-to-Hydrogen Conversion and its Transformation to Electricity (ECLIPSE). (2020-2022). MINECO 144 k€.

7 **CELLUX.** CeO2 Nanoparticles-assisted stem-cell therapy (CELLUX). EURONANOMED-III. Joint Transnational Call (2019). Victor F. Puntes; EURONANOMED2019-111. 250.000 €. 01/01/2020-31/12/2022

8 **SABYDOMA.** Safety BY Design of nanoMaterials - From Lab Manufacture to Governance and Communication: Progressing Up the TRL Ladder. Victor F. Puntes. European - H2020. NMBP-15- 2019 - Safe by design, from science to regulation: metrics and main sectors (RIA). 862296. 327.333,75 €. 1/04/2020- 30/09/2023.

9 **PROMECeAN.** Desenvolupament i aplicació de nanopartícules de ceri en el tractament del carcinoma hepatocel.lular. AGAUR, Indústria del Coneixement. PRODUCTE. 100.000€. 2019-2020.

10 **ENDONANO.** Quantitative detection of bacterial endotoxin by novel nanotechnological approaches. Victor F. Puntes. European - H2020. MSCA-ITN-2018 - Innovative Training Networks. 812661. 125.452 €. 1/01/2019-31/12/ 2022

11 **INNOCENT.** Innovative Nanopharmaceuticals: Targeting Breast Cancer Stem Cells by a Novel Combination of Epigenetic and Anticancer Drugs with Gene Therapy. **PI:** Victor F. Puntes; Instituto de Salud Carlos III. AC16/00053. 96.049€. 1-Jan-2017/ 1-Jan-2020.

12 **PANDORA:** Probing safety of nano-objects by defining immune responses of environmental organisms; PI: Victor F. Puntes; European Union – H2020. 671881. 247.873€. 1-Jan-2016/ 1-Jan-2020.

13 **NanoFASE:** Nanomaterial FAte and Speciation in the Environment. Victor F. Puntes; Funding Agency: European Union – H2020. 646002. 200.000€. 1-Sep-2015/ 1-Sep-2019.

14 **HISENTS:** High level Integrated SEnsor for NanoToxicity Screening. Victor F. Puntes. European Union – H2020. 685817. 341.250€. 1-Mar-2016/ 1-Mar-2019.

15 **DANAE:** Diseño de complejos de nanocristales inorgánicos avanzados para la transformación y el almacenamiento óptimo de energía. Victor F. Puntes. Mineco. MAT2015-70725-R. 181.500€. 1-Jan-2016/ 31-Dec-2018.

16 **FutureNanoNeeds:** Framework to respond to safety and regulatory needs of future nanomaterials and Markets. Victor F. Puntes. European Union - FP7. GA604602. 295.905€. 1-Jan-2014 / 31-Dec-2017.

17 **GUIDEnano:** Assessment and mitigation of nano-enabled product risks on human and environmental health: Development of new strategies and creation of a digital guidance tool for nanotech industries. **PI:** Victor F. Puntes; **Funding Agency:** European Union - FP7; **Reference:** GA604387; **Budget:** 514.624€; **Length:** 1-Nov-2013/ 30-Apr-2017.

18 **TUNANOCRYSTAL:** Developing Synthetic Strategies for Complex Multi-component Inorganic Nanocrystals with Tunable Physico-Chemical. **PI:** Victor F. Puntes; **Funding Agency:** Ministerio de Economía y Competitividad (MINECO); **Reference:** MAT2012-33330; **Budget:** 134.550€; **Length:** 1-Feb-2013 / 31-Jan-2016.

19 **QNano:** A pan-European infrastructure for quality in nanomaterials safety testing. **PI:** Victor F. Puntes; **Funding Agency:** European Union - FP7; **Reference:** GA262163; **Budget:** 257.102€; **Length:** 1-Feb-2011 / 31-Jan-2015

20 The Catalan Nanoparticle Design Group: Design, Synthesis and Characterization of Inorganic Nanoparticles **PI:** Victor Puntes **Funding agency:** AGAUR suport grups de qualitat SGR **Reference** 2021 SGR 00878 **Budget:** 40.000,00 € (2021-2025)

21 Nanobioreal. Risk assessment of nanotoxicity in real conditions. **PI:** Victor Puntes (consorcio). **Funding Agency** Norway Science Fundation. **Budget:** 80.000 1/4/19-31/3/21

22 NANOBITCo Europeo Cooperacion Eu-Latin America 6/6/2019 31/12/20 **PI**: Victor Puntes **Budget** 100.000. 6/6/2019 31/12/20

23 META2NOL más allá del biogás como energía renovable: conversión a metanol mediante nanopartículas metálicas en soportes tipo metal-organic frameworks (mofs). **Funding agency** Fundacíón Areces **PI:** Victor Puntes. **Budget:** 154.400 01/01/2020-31/12/2022

More detailed and previous projects:

0.- PROMECeAN: CeO2 NPs to treat Hepatocellular Carcinoma. Producte from Generalitat de Catalunya, Neus Batus and Victor Puntes.

Entity where project takes place: Vall d'Hebron Research Institute (ICN2)

Nº of researchers: 6

Funding entity or bodies: AGAUR

Start-End date: 01/01/2019 – 31/12/2021

Total amount: 100000 €

1. LUCIA: Determination of the conditions for the use of antioxidant CeO_2 nanoparticles for the treatment of human retine degeneration. FIS from ISCIII (PI18/00219) Jose García-Arumí (IP) and Victor Puntes.

Entity where project takes place: Vall d'Hebron Research Institute (VHIR)

Nº of researchers: 8

Funding entity or bodies: FIS from ISCIII (PI18/00219) -Instituto de Salud Carlos III

Start-End date: 01/01/2019 – 31/12/2021

Total amount: 150000 €

2. *ThermoShot. A new technology for multirresistant infections and the ones associated to biofilms of medical devices.* FIS from ISCIII FIS num PI18/01162.

PI: Víctor Puntes. (Barcelona).

Entity where project takes place: Vall d'Hebron Research Institute (VHIR)

Nº of researchers: 8

Funding entity or bodies: FIS from ISCIII (PI18/01162) -Instituto de Salud Carlos III

Start-End date: 01/01/2019 – 31/12/2021

Total amount: 10000 €

3. *CONCORD Cationic Gold nanoparticles mediated mRNA cytoplasmatic-targeted delivery*

for production of CAR-T lymphocytes for Chronic Lymphoid Leukemia immunotherapy.

PI: Víctor F. Puntes

Nº of researchers: > 5

Entity where the project takes place: Catalan Institute of Nanoscience and Nanotechnology.

Funding entity or bodies: MINECO and ISCIII. Exp Number. AC18/00072

Start-End date: 01/04/2019-31/03/2021.

Total amount: 162500 €.

4. *2017 Ignite Project: SOLHYCAT - Carbon Materials as Charge Transfer Platforms to Convert Sunlight into Fuel with a Nanocrystal-Molecular Catalyst hybrid*

Co-PI: Víctor F. Puntes

Nº of researcheres: >8

Entity where the project takes place: Catalan Institute of Nanoscience and Nanotechnology

Funding Entity or bodies: BIST

Start-End date: Awarded March 2018

Total amount: 20000€

5. *ENDONANO: Quantitative detection of bacterial endotoxin by novel nanotechnological approaches. Programme(s). H2020-EU.1.3.1. - Fostering new skills by means of excellent initial training of researchers. Topic(s) MSCA-ITN-2018 - Innovative Training Networks Call for proposal H2020-MSCA-ITN-2018*

Grant agreement ID: 812661

Start-End date: 01/01/2019 - 31/12/2022 Duration: 3 years

Total amount: 125452.44€

6. *INNOCENT:Innovative Nanopharmaceuticals: Targeting Breast Cancer Stem Cells by a Novel Combination of Epigenetic and Anticancer Drugs with Gene Therapy*

Entity where project took place: Vall d'Hebron Research Institute (VHIR)

Nº of researchers: 4

Funding entity or bodies:

Instituto de Salud Carlos III

Start-End date: 01/01/2017 - 01/01/2020

Total amount: 100.000 €

6. *Grants for the incorporation of postdoctoral research staff into the Catalan science*

and technology system, within the Beatriu de Pinós programme (BP 2016) 2016 BP 00350

Entity where project took place: Catalan Insitute of Nanoscience and Nanotechnology and Vall d'Hebron Research Institute (VHIR)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes, Laura Mondragón Martínez

Nº of researchers: 2

Funding entity or bodies: AGAUR. Agency for Management of University and Research Grants

Start-End date: 01/03/2018 – 29/02/2020

Total amount: 92000 €

7. *Grants for the incorporation of postdoctoral research staff into the Catalan science*

and technology system, within the Beatriu de Pinós programme (BP 2016)

Entity where project took place: Catalan Insitute of Nanoscience and Nanotechnology and Vall d'Hebron Research Institute (VHIR)

Name principal investigator (PI, Co-PI.): Victor Franco Puntes and Eudald Casals

Nº of researchers: 2

Funding entity or bodies: AGAUR. Agency for Management of University and Research Grants

Start-End date: 01/03/2018 – 29/02/2020

Total amount: 92000 €

8. Pandora: Probing safety of nano-objects by defining immune responses of environmental organisms.

Entity where project took place: Catalan Institute of Nanotechnology (ICN)

Nº of researchers: 4

Funding entity or bodies:

H2020

Start-End date: 01/01/2016 - 01/01/2020

Total amount: 247.873 €

9. NanoFASE: Nanomaterial FAte and Speciation in the Environment

Entity where project took place: Applied Nanoparticles S.L

Nº of researchers: 4

Funding entity or bodies:

EU H2020

Start-End date: 01/09/2015 - 01/09/2019

Total amount: 200.000 €

10. HISENTS: High level Integrated SEnsor for NanoToxicity Screening

Entity where project took place: Catalan Institute of Nanotechnology (ICN)

Nº of researchers: 4

Funding entity or bodies:

European Union H2020

Start-End date: 01/03/2016 - 01/03/2019

Total amount: 341.250 €

11. DANAE: Diseño de complejos de nanocristales inorgánicos avanzados para la transformación y el almacenamiento óptimo de energía

Entity where project took place: Catalan Institute of Nanotechnology (ICN)

Funding entity or bodies:

Mineco

Start-End date: 01/09/2015 - 01/09/2018

Total amount: 181.500 €

12. FutureNanoNeeds: Framework to respond to regulatory needs of future nanomaterials and Markets

Entity where project took place: Catalan Institute of Nanotechnology (ICN)/ Vall d'Hebron Research Institute (VHIR)

Name principal investigator (PI, Co-PI.): Victor Franco Puntes

Nº of researchers: 3

Funding entity or bodies:

European Commission - FP7-NMP-2013-LARGE-7

Name of the programme: European Commission - FP7-NMP-2013-LARGE-7

Code according to the funding entity: GA604602

Start-End date: 01/01/2014 - 31/12/2017 Duration: 4 years

Total amount: 295.905 €

13. GUIDEnano: Assessment and mitigation of nano-enabled product risks on human and environmental health: Development of new strategies and creation of a digital guidance tool for nanotech industries

Entity where project took place: ICN as partner (Coordinator: LEITAT, Spain)/ Vall d'Hebron Research Institute (VHIR)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 3

Funding entity or bodies:

European Commission - FP7-NMP-2013-LARGE-7

Name of the programme: FP7-NMP-2013-LARGE-7 (FP7 Cooperation)

Code according to the funding entity: GA No. 604387

Start-End date: 01/11/2013 - 30/04/2017 Duration: 3 years - 6 months

Total amount: 391.513 €

14. SGR-2014: Suport a les activitats dels Grups de Recerca de Catalunya

Entity where project took place: Catalan Institute of Nanotechnology (ICN)

Name principal investigator (PI, Co-PI.): Victor Franco Puntes

Nº of researchers: 5

Funding entity or bodies:

Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR) - Catalan Government

Name of the programme: SGR - AGAUR - Generalitat de Catalunya

Code according to the funding entity: 2014 SGR 612

Start-End date: 01/01/2014 - 31/12/2016 Duration: 3 years - 11 months

Total amount: 15.000 €

15. BIOGAS+. Enhancing anaerobic conversion of biomass and biogas production by controlled dosing of iron to Archaea bacteria via designed iron oxide nanoparticles

Entity where project took place: Applied Nanopartices S.L

Nº of researchers: 4

Funding entity or bodies:

SME instrument H2020

Start-End date: 01/06/2015 - 31/05/2016

Total amount: 50.000 €

16. TUNANOCRYSTAL: Desarrollo de Estrategias para Síntesis de Nanocristales Inorgánicos Multi-componente Complejos con Propiedades Físico-Químicas Ajustables Geographical area: National

Entity where project took place: Catalan Institute of Nanotechnology (ICN)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes; Neus Gómez Bastús

Nº of researchers: 9

Funding entity or bodies: Spanish Government - Ministerio de Economía y Competitividad

Name of the programme: Plan Nacional (MINECO) - Gobierno de España

Code according to the funding entity: MAT2012-33330 (Just recently approved)

Start-End date: 01/01/2013 - 31/12/2015 Duration: 3 years

Total amount: 115.000 €

17. Ramón y Cajal program – Call 2012 – Reference: RYC-2012-10991

Entity where the project took place: Catalan Institute of Nanoscience and Nanotechnology (ICN2)

Name principal investigator (PI, Co-PI): Víctor Franco Puntes, Neus Gómez Bastús

Nº of researchers: 2

Funding entity or bodies: European Comission

Name of the program: Career Integration Grants-Marie Curie Actions.

Start-End date: 01/07/2014 – 30/6/2019 Duration: 5 years

Total amount: 308600€

18. Career integration Grant for Neus Gómez Bastús.

Entity where the project took place: Catalan Institute of Nanoscience and Nanotechnology (ICN2)

Name principal investigator (PI, Co-PI): Víctor Franco Puntes, Neus Gómez Bastús

Nº of researchers: 2

Funding entity or bodies: European Comission

Name of the program: Career Integration Grants-Marie Curie Actions.

Start-End date: 01/01/2012 – 31/12/2013 Duration: 2 years

Total amount: 75600€

19. Name of the project: QNANO: A pan-European infrastructure for quality in nanomaterials safety testing

Entity where project took place: ICN as partner (Coordinator: University College Dublin, Ireland)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 3

Funding entity or bodies:

European Comission - FP7-INFRASTRUCTURES

Name of the programme: FP7-INFRASTRUCTURES (FP7 Capacities)

Code according to the funding entity: GA No. 262163

Start-End date: 01/02/2011 - 31/01/2015 Duration: 4 years

Total amount: 209.177 €

20. NanoTOES - Nanotechnology: Training Of Experts in Safety

Entity where project took place: ICN as partner (Coordinator: Salzburg University, Austria)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 3

Funding entity or bodies:

European Commission - FP7-PEOPLE-2010-ITN

Name of the programme: Marie Curie Initial Training Networks (ITN) (FP7 People)

Code according to the funding entity: GA No. 264506

Start-End date: 01/11/2010 - 31/10/2014 Duration: 4 years

Total amount: 234.780 €

21. SGR-2009: Suport a les activitats dels Grups de Recerca de Catalunya

Entity where project took place: Catalan Institute of Nanotechnology (ICN)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 9

Funding entity or bodies:

Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR) - Catalan Government

Name of the programme: SGR - AGAUR - Generalitat de Catalunya

Code according to the funding entity: 2009 SGR 776

Start-End date: 28/09/2009 - 31/12/2013 Duration: 4 years - 3 months - 2 days

Total amount: 40.560 €

22. NANOPOLYTOX: Toxicological impact of nanomaterials derived from processing, weathering and

recycling of polymer nanocomposites used in various industrial applications.

Entity where project took place: ICN as partner (Coordinator: LEITAT, Spain)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 2

Funding entity or bodies:

European Commission - FP7-NMP-ENV-2009

Name of the programme: FP7-NMP-ENV (FP7 Cooperation)

Code according to the funding entity: GA No. 247899

Start-End date: 01/05/2010 - 30/04/2013 Duration: 3 years

Total amount: 220.456 €

23. Diseño de Nanoparticulas Inorgánicas conjugadas: Nuevas herramientas para el tratamiento del cáncer

Entity where project took place: ICN as Coordinator (Partner: Universidad de Santiago de Compostela, Spain)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 6

Funding entity or bodies:

Spanish Government - Ministerio de Ciencia e Innovación

Name of the programme: Plan Nacional (MICINN) - Gobierno de España

Code according to the funding entity: MAT2009 14734-C02-01

Start-End date: 01/01/2010 - 31/12/2012 Duration: 3 years

Total amount: 96.800 €

24. Construcció del CNBSS (Center for NanoBioSafety and Sustainability)

Entity where project took place: ICN as Coordinator (together with partner LEITAT, Spain)

Name principal investigator (PI, Co-PI.): Jordi Pascual Gainza; Víctor Franco Puntes; Laurent Aubouy

Nº of researchers: 5

Funding entity or bodies:

MICINN (Spanish Government) and ACC1Ó (Catalan Government)

Start-End date: 01/01/2009 - 31/12/2012

Total amount: 897.000 €

25. CISPLATÍ: Translation of gold nanoparticles conjugates with cisplatin to clinical-oncological stage: from the in vivo phase to phase I

Entity where project took place: Catalan Institute of Nanotechnology (ICN)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Funding entity or bodies:

ACC1Ó (Catalan Government)

Name of the programme: VALTEC - ACC1Ó - Generalitat de Catalunya

Code according to the funding entity: VALTEC09-2-0085

Start-End date: 15/10/2009 - 15/10/2012 Duration: 3 years

Total amount: 102.515 €

26. VACUNES: In vivo evaluation of the potential of nanoconjugates as vaccine adjuvants

Entity where project took place: Catalan Institute of Nanotechnology (ICN)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 5

Funding entity or bodies:

ACC1Ó (Catalan Government)

Name of the programme: VALTEC - ACC1Ó - Generalitat de Catalunya

Code according to the funding entity: VALTEC09-2-0089

Start-End date: 15/10/2009 - 15/10/2012 Duration: 3 years

Total amount: 107.515 €

27. CONSOLIDER NANOBIOMED - Subunit: In-vitro Experimentation of nanoparticles based biofluids

Entity where project took place: ICN as partner (Coordinator: Instituto de Nanociencia de Aragón, Spain)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 4

Funding entity or bodies: Spanish Government

Name of the programme: CONSOLIDER-INGENIO 2010 - Gobierno de España

Code according to the funding entity: CDS2006-00012

Start-End date: 15/09/2006 - 31/12/2011 Duration: 3 years - 3 months

Total amount: 79.268 €

28. NANOCLEAN: Evaluación del potencial de nanopartículas inorgánicas funcionalizadas para la eliminación de nitrógeno, fósforo, pesticidas orgánicos y metales pesados en masas de agua. Evaluación de la toxicidad y posibilidades de regulación

Geographical area: National

Entity where project took place: ICN as Coordinator (together with partner UAB, Spain)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 3

Funding entity or bodies:

Spanish Government - Ministerio de Medio Ambiente y Medio Rural y Marino

Name of the programme: Programa Nacional de Proyectos de Desarrollo Experimental - Gobierno de España

Code according to the funding entity: 007/RN08/03.1

Start-End date: 12/04/2008 - 30/04/2011 Duration: 3 years - 18 days

Total amount: 152.443 €

29. DIPNA: Development of an Integrated Platform for Nanoparticle Analysis to verify their possible toxicity and the eco-toxicity

Geographical area: European Union

Entity where project took place: ICN as partner (Coordinator: CNISM, Italy)

Nº of researchers: 2

Funding entity or bodies:

European Comission - FP6-NMP-STRP

Name of the programme: FP6-NMP (FP6 Cooperation)

Code according to the funding entity: GA No. 32131

Start-End date: 01/11/2006 - 31/10/2009 Duration: 3 years

Total amount: 217.044 €

30. Síntesis de Nanopartículas y materiales nanoestructurados por autoensamblaje

Entity where project took place: Catalan Institute of Nanotechnology (ICN)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 4

Funding entity or bodies:

Spanish Government - Ministerio de Educación y Ciencia

Name of the programme: Plan Nacional (MEC) - Gobierno de España

Code according to the funding entity: MAT2006 13572-C02-02

Start-End date: 01/10/2006 - 30/09/2009 Duration: 3 years

Total amount: 117.370 €

31. Síntesis de nanomateriales avanzados para su aplicación en nanomedicina: NANOAUCO y conjugación múltiple

Entity where project took place: Catalan Institute of Nanotechnology (ICN)

Name principal investigator (PI, Co-PI.): Joaquín Querol Sastre

Nº of researchers: 2

Funding entity or bodies:

Spanish Government - Ministerio de Industria, Turismo y Comercio

Name of the programme: Program PROFIT del Ministerio de Industria, Turismo y Comercio - Gobierno de España

Code according to the funding entity: FIT-42000-2007-15

Start-End date: 01/01/2007 - 31/03/2008 Duration: 1 year - 3 months

Total amount: 53.176 €

32. Cerium oxide nanoparticles as a new therapeutic tool for tissue regeneration in liver diseases

Entity where project took place: ICN as partner (together with Hospital Clinic, Spain)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 3

Funding entity or bodies:

Fundació La Marató (La Marató de TV3 2012)

Name of the programme: La Marató de TV3 (2012 edition)

Start date: 01/01/2013

Total amount: 100.000 €

R &D non-competitive contracts, agreements or projects with public or private entities

33 Name of the project: Biogás +. Producción Aumentada de Biogás Mediante la Adición de Nanopartículas de Hierro

Name principal investigator (PI, Co-PI.): Victor Franco Puntes

Nº of researchers: 4

Funding entity or bodies:

Fundación Repsol Type of entity: Foundation

City funding entity: Madrid, Spain

Start date: 01/09/2014 Duration: 2 years

Total amount: 288.000 €

34 Biogás+. Producción Aumentada de Biogás Mediante la Adición de Nanopartículas de Hierro

Nº of researchers: 4

Funding entity or bodies:

Fundacion Repsol

Start date: 01/09/2013 Duration: 1 year

Total amount: 12.000 €

35 Nanoparticles for drug delivery (ICN PRJ 09/11) - Other details are confidential

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes; Miriam Varón Izquierdo

Nº of researchers: 2

Funding entity or bodies:

Nanotargeting SL Type of entity: Business

Start date: 01/07/2012 Duration: 3 months

36 Name of the project: Development of materials and activities for exhibition on Nanotechnology (CosmoCaixa Tecnorevolució - ongoing)

Name principal investigator (PI, Co-PI.): Víctor Franco Puntes

Nº of researchers: 5

Funding entity or bodies:

Obra Social Fundación la Caixa Type of entity: Foundation

City funding entity: Barcelona, Catalonia, Spain

Start date: 01/05/2011

Detailed CV in the intersection of SCIENCE + CULTURE + ART:

> Founding member of the cultural group NAU XXI (2006-present day) www.nau21.net

> Founder and co-director of nanowiki. (2007-present) www.nanowiki.info

> MiracLab. Founder and responsible member. (2010)

> Consolidation of two projects financed by the Department of Culture of the Generalitat. Year 2005 (€ 3500) and 2006 (€ 9000) consisting of the exhibition of images of electron microscopy in non-scientific contexts, tiutlat: NANONAUTES: THE HABITANTS OF NANOLANDIA.

a) Exhibitions.

> Science after Science, April 2001, University of Berkeley.

> Artificial Landscapes, August 2002, Consortium for the Science and Arts, Berkeley.

> Promenade in Nanoland, February 2004, Metronom, Barcelona.

> Nanometric Aesthetics. September 2004, Sala Columnes, Vic.

> NanoPImaTMolec, UAB Theater Hall, Nanoparticles and Molecular Materials, Bellaterra, April 11 - May 27, 2005.

> 26.- Nanometric Nanoparticles Exhibition Newton Gallery, Puerta de Toledo, Madrid 15 Nov 2005 - January 7, 2006

> NANONAUCO The book gallery, San Francisco, August 15-30, 2006

> Intimate geographies of matter. Sala Aifos, Alicante. "Joan Peris, based on a poetic implication and the creative observation and manipulation of the subject, manages to generate a plastic discourse. Víctor Puntes, artist and scientist, completed the sample with an aesthetic look at the behavior of the microparticles observed through the electronic microscope." (http://www.ua.es/secretaria.gral/va/memoria/2006_07/10_veu/ exposiciones_2.html.

> Complete presentation of Promenade in Nanoland (video + exhibition + installation) at the University Museum of Alicante within the quarter of Science and Technology (CIENCIATEC) at the University of Alicante from November 15, 2005 to January 7 of 2006

> Blue Tack! Collective Exhibition UND Karlsruhe, GE. Blue Tack! Collective Exhibition UND Karlsruhe, GE March 18 to 26, 2007

http://www.saladestar.com/07/07_14suit_cases/suit_cases_esp.html

> Collaboration in the section dedicated to Nanoparticles in the Science Week of the University of Salzburg (presentation of the video Promenade in Nanoland, demonstration materials as physical phenomena around the colloids, etc.). November 2009.

> Electronic gallery of images to transcultural: www.transcultural.es (2008-2010) and webpage of the company Nanonica www.nanonica.com (2008-present)

b) Work permanently exhibited:

1) Hilldebrandt D-Level, College of Chemistry, University of California at Berkeley, Berkeley.

2) Scientific-Technical Services of the University of Barcelona, Barcelona.

c) Collective exhibitions:

> Inside the Exhibition The physics of aesthetics, Itinerant throughout Catalonia, Alzheimer's, memory and forgetfulness http://estetica.ecm.ub.es/estetica/alzheimer.htm Marc-December 2005

> In Entropia, Chaos, Order and Emergency, The Way 2 See the Light: Dark Field, Cold Creation Gallery, May 2005.

d) Artistic interventions and conferences (selection):

> Presentation in Barcelona of Artificial Landscapes at STRADDLE3, Riereta 32, Barcelona. October 2002.

> NANOCOSMOS. Performance Audiovisual premiered in Bilbao, in the former Mercy Church with contemporary chamber music composed by the occasion of Fran Lasuen and poem readings by Arzak and Brossa on the Promenade in Nanoland work.

> Presentation of the Promenade in Nanoland at the Parc Científic de Barcelona, at the Riereta.net technology workshop, at the Faculty of Physics of the University of Barcelona, at the Technical Scientific Services of the University of Barcelona, the Catalan Institute of Chemical Research, Presentation complete (video + exhibition + installation) at the University Museum of Alicante within the quarter of Science and Technology (CIENCIATEC) at the University of Alicante from November 15, 2005 until January 7, 2006, presentation in the neighborhood from Sants to the PIM PAM PUM FILMS collective, October 2006.

> Conference "Everything that is more interested in the physicists of nanotechnology is everything that is not physical" within the cycle of the UAB THE YEAR OF LA FISICA, BORDERS OF KNOWLEDGE. UAB 21 Feb 05

> Nanolandia Walk, the Nanocosmos, performance as result of the symbiosis between Promenade in Nanoland and Nanocosmos in the auditorium of la Caixa in Tarragona on November 7, 2005, with images, music and direct declarations.

> NANOCONEXIONES Valencia 2008 Presentation: "Introducing Art into Science"

> NANOCOSMOS. Audiovisual performance in Lisbon. 2008

> Nanometric nanoparticles. Permanent Seminar on Natural Sciences (high school teachers) Hospital de Sant Pau, October 17, 2008.

> Seminar Nanorisc: The Governance of Risk in Nanotechnologies. Co-organizer and speaker. Casa de la convalecencia, Barcelona. November 5, 2008.

> Professor / Speaker in various summer courses organized by the University of Barcelona and the International University Menéndez Pelayo (2008-2009)

> "Trip to Nanolandia". Guest lecture in the "Art, Science and Technology 2009" series of the Public University of Navarre (UPNA). 2009.

> Nanoscience. Miniature science Invited speaker at the Scientific Coffee Organized by the Genomic Regulation Center. Nanotechnology 19 May 2010.

> https://vimeo.com/90991457

> PechaKucha Night Barcelona Vol. 18 - Víctor Puntes

>NANOCAEDRE (NANOtecnologia, ciència i art en un dodecaEDRE Barcelona 10 Decembre 2019

>Institut de Nanociència i Nanotecnologia de la UB (IN2UB) y Associació Catalana de Comunicació Científica (ACCC)

- **OTHER DISSEMINATION ACTIVITIES.**

I believe that advanced education is a critical value to promote the socio-economical, technological and cultural progress of our societies. I dedicate a significant effort to academic and non academic societal

education. For a more specialized audience, we developed **Nanowiki** - (2006-present) recently acknowledge among **the best 10 sites** to get informed on nanotechnology. To target young investigators and general public we have obtained funds from private organizations and local administrations. Recently, our ebook of 2013, entitled **Nanoparticles Before Nanotechnology**, reached more than 18.000 downloads. Another example is **Goldlight**, an educative project bsed in a joined collaboration between ING group and jewellers led to the creation of "quantum jewellery" based on colloidal solutions of hollow Au NPs. It was recently featured in **The Guardian**. Similarly, our *Science* paper was featured on the **BBC**, among many others.

Dissemination activities developed by Prof. Puntes also include talks to non-specialized audiences, internet platforms, science and art videos and science divulgation videos, science museum exhibitions, electronic and hardcopy books and other platforms including art exhibitions on NP microscopy images and television/radio interviews. Remarkably, members of his group won many prizes in different conferences and the 2011 FOTCIENCIA edition best electronic microscopy image.

e) Publications, dissemination articles, etc.

> Articles in journals:

- Nanoparticles: Inorgánicas Molecules, Magazine of the Catalan Society of Physics, 2003.

- Nanostructures of Cobalto, Research and Science, 2004

- The images of nanoparticles have also been requested by the chapter devoted to Nanotechnology in the work of Eduard Punset, Face to Face With Life, Mind and the Universe. Ed. Destino, 2004.

- Mons en Silenci Transversal # 25, 2005.Confessions Transversal # 26, 2005.

- Contributions to Science (from the IEC science section) on nanotechnologies and life sciences (2008) and nanotechnologies and cosmetics (2008)

- Nanopanic, Nanoeuforia: Nanoinfo, 2009.

- Foto cièntifica, Revista Método, 2010

- While Scientists are still wondering, Industry is already selling British magazine "Nanonow" on the dissemination of nanotechnologies.

> Victor Puntes, Cinzia Pecoraro The Insectians of the Galaxy. NAU21 a year, a month and a day, 42-57, May 2007.

> Victor Puntes The gates of perception: LSD, Microscope, Mathematics and others. RésQualia http://www.res-qualia.net/experiences .php> Nanowiki.info: 9 video capsules in Spanish (http://www.dailymotion.com/swf/x5clm9) and in English (http://video.google.com/videoplay?docid=2638056775124282539&hl=en)

> Publication of the book: Nanowiki.info. Operations Manual (2008) http://www.nanowiki.info/#[[operating%20manual]]] Publication of the book: Nanotechnology: Balancing the Promises. (2010) http://www.nanowiki.info/# [[Nanotechnology% 3A balancing the promises]]

f) Audiovisual Media.

> Articles published in newspapers of general information (Today, El Periódico de Catalunya 2007-actualidad) and other magazines (GQ, 2008)

> Photonewell about his work as a science and disseminator at BCN-URB, infotonovela of the Emerging Barcelona, a joint publication of the City Council of Barcelona and Actar. (2008) http://www.on-a.es/download_area/pdf_publication.php?id_publicacion=22>Entrevistes to various audiovisual media: Net-radio (Internet radio) program LaDinamo Magazine, interviews on current issues in science 2 Interventions, spring-summer 2005; Bvisio (2008); Radio el Prat (2008); COM Radio (2009); Radio France International (2010).

> Collaboration in the Science in BTV program, presented by Irene Lapuente (May-June 2010)

FULL PUBLICATIONS LIST:

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288 . Esplandiu, M.; Bastus, N.; Fraxedas, J.; Ihmaz, I.; Puntes, V.; Radjenovic, J.; Sepúlveda, B.; Serrá, A.; Suárez-García, S.; Franzese, G., Interfacial phenomena in nanotechnological applications for water remediation. **2023**.

287 . Genç, A.; Patarroyo, J.; Sancho-Parramon, J.; Arenal, R.; Bastús, N. G.; Puntes, V.; Arbiol, J., Asymmetrical plasmon distribution in hybrid AuAg hollow/solid coded nanotubes. *Nanomaterials* **2023,** *13* (6), 992.

286 . Gusta, M. F.; Edel, M. J.; Salazar, V. A.; Alvarez-Palomo, B.; Juan, M.; Broggini, M.; Damia, G.; Bigini, P.; Corbelli, A.; Fiordaliso, F.; Barbul, A.; Korenstein, R.; Bastus, N. G.; Puntes, V., Exploiting endocytosis for transfection of mRNA for cytoplasmatic delivery using cationic gold nanoparticles. *Front Immunol* **2023,** *14*, 1128582. https://doi.org/10.3389/fimmu.2023.1128582

285 . Badia, A.; Duarri, A.; Salas, A.; Rosell, J.; Ramis, J.; Gusta, M. F.; Casals, E.; Zapata, M. A.; Puntes, V.; Garcia-Arumi, J., Repeated Topical Administration of 3 nm Cerium Oxide Nanoparticles Reverts Disease Atrophic Phenotype and Arrests Neovascular Degeneration in AMD Mouse Models. *ACS Nano* **2023,** *17* (2), 910-926. https://doi.org/10.1021/acsnano.2c05447

284 . Palau, M.; Munoz, E.; Gusta, M. F.; Larrosa, N.; Gomis, X.; Gilabert, J.; Almirante, B.; Puntes, V.; Texido, R.; Gavalda, J., In Vitro Antibacterial Activity of Silver Nanoparticles Conjugated with Amikacin and Combined with Hyperthermia against Drug-Resistant and Biofilm-Producing Strains. *Microbiol Spectr* **2023,** *11* (3), e0028023. https://doi.org/10.1128/spectrum.00280-23

283 . Ernst, L. M.; Mondragon, L.; Ramis, J.; Gusta, M. F.; Yudina, T.; Casals, E.; Bastus, N. G.; Fernandez-Varo, G.; Casals, G.; Jimenez, W.; Puntes, V., Exploring the Long-Term Tissue Accumulation and Excretion of 3 nm Cerium Oxide Nanoparticles after Single Dose Administration. *Antioxidants (Basel)* **2023,** *12* (3), 765. https://doi.org/10.3390/antiox12030765

282 . Violatto, M. B.; Sitia, G.; Talamini, L.; Morelli, A.; Tran, N. L.; Zhang, Q.; Masood, A.; Pelaz, B.; Chakraborty, I.; Cui, D.; Parak, W. J.; Salmona, M.; Bastus, N. G.; Puntes, V.; Bigini, P., Variations in Biodistribution and Acute Response of Differently Shaped Titania Nanoparticles in Healthy Rodents. *Nanomaterials (Basel)* **2023,** *13* (7), 1174. https://doi.org/10.3390/nano13071174

281 . Silva, P. V.; Silva, A. R. R.; Clark, N. J.; Vassallo, J.; Baccaro, M.; Medvescek, N.; Grgic, M.; Ferreira, A.; Busquets-Fite, M.; Jurkschat, K.; Papadiamantis, A. G.; Puntes, V.; Lynch, I.; Svendsen, C.; van den Brink, N. W.; Handy, R. D.; van Gestel, C. A. M.; Loureiro, S., Toxicokinetics and bioaccumulation of silver sulfide nanoparticles in benthic invertebrates in an indoor stream mesocosm. *Sci Total Environ* **2023,** *873*, 162160. https://doi.org/10.1016/j.scitotenv.2023.162160

280 . Chen, Y.; Soler, L.; Cazorla, C.; Oliveras, J.; Bastus, N. G.; Puntes, V. F.; Llorca, J., Facet-engineered TiO(2) drives photocatalytic activity and stability of supported noble metal clusters during H(2) evolution. *Nat Commun* **2023,** *14* (1), 6165. https://doi.org/10.1038/s41467-023-41976-2

279 . Casonato Melo, C.; Fux, A. C.; Himly, M.; Bastus, N. G.; Schlahsa, L.; Siewert, C.; Puntes, V.; Duschl, A.; Gessner, I.; Fauerbach, J. A., Recovering What Matters: High Protein Recovery after Endotoxin Removal from LPS-Contaminated Formulations Using Novel Anti-Lipid A Antibody Microparticle Conjugates. *Int J Mol Sci* **2023,** *24* (18), 13971. https://doi.org/10.3390/ijms241813971

278 . Patarroyo, J.; Bastus, N. G.; Puntes, V., Sculpting Windows onto AuAg Hollow Cubic Nanocrystals. *Nanomaterials (Basel)* **2023,** *13* (18), 2590. https://doi.org/10.3390/nano13182590

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275 . Ernst, L. M.; Puntes, V., How Does Immunomodulatory Nanoceria Work? ROS and Immunometabolism. *Front Immunol* **2022,** *13* (March), 750175. https://doi.org/10.3389/fimmu.2022.750175

274 . Barbero, F.; Michelini, S.; Moriones, O. H.; Patarroyo, J.; Rosell, J.; M, F. G.; Vitali, M.; Martin, L.; Canals, F.; Duschl, A.; Horejs-Hoeck, J.; Mondragon, L.; Bastus, N. G.; Puntes, V., Role of Common Cell Culture Media Supplements on Citrate-Stabilized Gold Nanoparticle Protein Corona Formation, Aggregation State, and the Consequent Impact on Cellular Uptake. *Bioconjug Chem* **2022,** *33* (8), 1505-1514. https://doi.org/10.1021/acs.bioconjchem.2c00232

273 . Zhao, S.; Riedel, M.; Patarroyo, J.; Bastus, N. G.; Puntes, V.; Yue, Z.; Lisdat, F.; Parak, W. J., Tailoring of the photocatalytic activity of CeO(2) nanoparticles by the presence of plasmonic Ag nanoparticles. *Nanoscale* **2022,** *14* (33), 12048-12059. https://doi.org/10.1039/d2nr01318e

272 . Clark, N.; Vassallo, J.; Silva, P. V.; Silva, A. R. R.; Baccaro, M.; Medvescek, N.; Grgic, M.; Ferreira, A.; Busquets-Fite, M.; Jurkschat, K.; Papadiamantis, A. G.; Puntes, V.; Lynch, I.; Svendsen, C.; van den Brink, N. W.; van Gestel, C. A. M.; Loureiro, S.; Handy, R. D., Metal transfer to sediments, invertebrates and fish following waterborne exposure to silver nitrate or silver sulfide nanoparticles in an indoor stream mesocosm. *Sci Total Environ* **2022,** *850*, 157912. https://doi.org/10.1016/j.scitotenv.2022.157912

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269 . Duarri, A.; Salas, A.; Badia, A.; Rosell, J.; Puntes, V.; García-Arumí, J., Nanoceria eye drops improve RPE cell therapy in the retinal degenerative RCS rat model. *Investigative Ophthalmology & Visual Science* **2022,** *63* (7), 60 – A0033-0060 – A0033.

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263 . Kumarasamy, M.; Tran, N.; Patarroyo, J.; Mishra, S.; Monopoli, M.; Madarasz, E.; Puntes, V., "The Effects of Silver Nanoparticle Shape on Protein Adsorption and Neural Stem Cell Viability". *Chemistryselect* **2022,** *7* (39), e202201917. https://doi.org/10.1002/slct.202201917

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