

1. PERSONAL DETAILS

Name: Mónica H. Pérez-Temprano

Researcher ID: 8571-2015; **ORCID:** 0000-0003-4818-7990

Born: 27th September 1982; Valladolid (Spain)

Current position

Since October 2015 – Research Junior Group Leader at the Institute of Chemical Research of Catalonia (ICIQ)

Address

Institute of Chemical Research of Catalonia (ICIQ)
Avinguda dels Països Catalans 16
43007 Tarragona (Spain)

Telephone: +34 977 92 02 00

E-mail: mperez@iciq.es

Web site: http://www.iciq.org/research/research_group/dr-monica-h-perez-temprano/

Twitter account: https://twitter.com/Perez_Temprano



2. PREVIOUS POSITIONS

- 02/2012-10/2015** University of Michigan (UMICH), Ann Arbor, MI (USA)
Ramón Areces Postdoctoral Fellow; Advisor, Prof. Melanie S. Sanford.
- 10/2011-01/2012** CINQUIMA Institute, University of Valladolid (Spain)
Postdoctoral Fellow, Advisor: Prof. P. Espinet.
- 03/2006-09/2011** CINQUIMA Institute, University of Valladolid, Valladolid (Spain)
Ph.D. Research Fellow; PhD Advisors: Prof. Pablo Espinet and Prof. Juan A. Casares
European PhD in Chemistry: “*Experimental Approaches to Reaction Mechanisms of Pd-Catalyzed Processes*” (*Suma Cum Laude*).
- 09/2009-12/2009** Universität Heidelberg, Heidelberg (Germany)
Visiting Student; Advisor: Prof. Lutz H. Gade.
- 09/2005-09/2006** University of Valladolid, Valladolid (Spain)
Master in Experimental Chemistry. Maximum Grade; Advisor: Prof. Juan A. Casares.
- 2005** Bachelor of Science in Chemistry. Grade: 3.2 (1, Pass; 2, Remarkable; 3, Outstanding; 4, With Honors). Number 2 of 2005 promotion. University of Valladolid, Spain

3. RESEARCH

GENERAL STATEMENT

Research focuses on the rational design and development of new and more efficient processes based on fundamental mechanistic understanding.

FELLOWSHIPS, HONORS AND AWARDS

- [12] 2019 **2019 Thieme Journal Award**
- [11] 2018 **Local personality** of 2018 by the *Diari de Tarragona* (included in the yearbook “La bona gent de Tarragona”)
- [10] 2018 **Chemical & Engineering News’ (C&EN) Talented 12** (<https://cen.acs.org/synthesis/catalysis/Monica-Perez-Temprano/96/i33>)
- [9] 2018 **JSP Fellowship** (Bürgenstock Conference)
- [8] 2015 – 2020 **Starting Career Programme** (ICIQ-SCP). Independent Research Group leader position. ICIQ
- [7] 2012 – 2014 **Postdoctoral Fellowship** from the Fundación Ramón Areces. University of Michigan
- [6] 2011 **Best Organic Poster Award** by European Journal of Organic Chemistry. XXXIII Biennial meeting of Spanish Royal Society of Chemistry. Valencia (Spain).
- [5] 2009 **PhD Fellowship Mobility Grant** (Spanish Ministry of Education). Anorganische-Chemisches Institut Heidelberg.
- [4] 2006 – 2010 **Spanish Ministry of Education Predoctoral Fellowship (FPU)**. University of Valladolid

- [3] 2006 – 2010 “Junta de Castilla y León” Predoctoral Fellowship. Rejected to accept number 4
- [2] 2006 – 2010 University of Valladolid Predoctoral Fellowship. Rejected to accept number 4
- [1] 2004 – 2005 Spanish Ministry of Education Undergraduate Research Fellowship. University of Valladolid

TEACHING ACTIVITIES

- 01/2015 – 05/2015 **Lecturer**, Honors Organic Chemistry II (CHEM 216 HH Class), University of Michigan (USA)
- 01/2014 – 05/2014 **Lecturer**, Honors Organic Chemistry II (CHEM 216 HH Class), University of Michigan (USA)
- 02/2009 – 06/2009 **Teaching assistant**, Structural Methods in Chemistry (3rd year Chemistry Degree, Credits given: 3.0; 30 h), University of Valladolid (Spain)

PUBLICATION LIST (‡ equal contribution; * corresponding author)

Independent Publications:

- [20] “Molecular Aspects of Cobalt Reaction Intermediates and Their Implications in Reactivity”
J. Sanjosé-Orduna, M. H. Pérez-Temprano*, *Inorg. Chem.* **2019**, 58, 10569-10577.
Invited contribution to the ACS Inorganic Chemistry Forum titled: “Celebrating the Year of the Periodic Table: Emerging Investigators in Inorganic Chemistry”
- [19] “Sustainable Knowledge-Based Strategies in Transition Metal-Catalyzed Transformations”
J. Sanjosé-Orduna,‡ A. L. Mudarra,‡ S. Martínez de Salinas,‡ M. H. Pérez-Temprano*, *ChemSusChem* **2019**, 12, 2882-2897.
Invited contribution to the ChemSusChem Special Issue – Sustainable Organic Synthesis
- [18] “Nucleophilic trifluoromethylation reactions involving copper species: From mechanistic insights to scope”
A. L. Mudarra,‡ S. Martínez de Salinas,‡ M. H. Pérez-Temprano*, *Synthesis* **2019**, 51, 2809-2820.
Invited contribution to the Synthesis Special Issue – Future Stars in Organic Chemistry
- [17] “Exploring the role of coinage metallates in trifluoromethylation: a combined experimental and theoretical study”
S. Martínez de Salinas, A. L. Mudarra, C. Odena, M. Martínez Belmonte, J. Benet-Buchholz, F. Maseras*, M. H. Pérez-Temprano*, *Chem. Eur. J.* **2019**, 25, 9390-9394.
Invited contribution to the 2019 Special Issue: OMCOS 20, Heidelberg
- [16] “Beyond the traditional roles of Ag in catalysis: the transmetalating ability of organosilver(I) species in Pd-catalysed reactions”
A. L. Mudarra,‡ S. Martínez de Salinas,‡ M. H. Pérez-Temprano*, *Org. Biomol. Chem.* **2019**, 17, 1655-1667.
Invited contribution to the Special Issues Catalysis & biocatalysis in OBC & New Talent.
- [15] “Highlights from the 53rd EUCHEMS conference of stereochemistry: Bürgenstock conference 2018”
A. Milo*, M. H. Pérez-Temprano*, *Chem. Commun.* **2018**, 54, 10014-10020.
Invited report of the 53rd Bürgenstock conference.
- [14] “HFIP-assisted C–H functionalization by Cp*Co^{III}: accelerated access to key reactive intermediates and implications in catalysis”
J. Sanjosé-Orduna,‡ J. M. Sarria,‡ M. H. Pérez-Temprano*, *Angew. Chem. Int. Ed.* **2018**, 57, 11369-11373. IF: 12.102.
- [13] “New vistas in transmetalation with discrete “AgCF₃” reagents: Implications in Pd-mediated trifluoromethylation reactions”
S. Martínez de Salinas, A. L. Mudarra, J. Benet-Buchholz, T. Parella, F. Maseras, M. H. Pérez-Temprano*, *Chem. Eur. J.* **2018**, 24, 11895-11898. IF: 5.16
Inside Cover (volumen 24, issue 46)
Special Issue: 7th EuCheMS Chemistry Congress, Liverpool.
- [12] “Capturing Elusive Cobaltacycle intermediates: A Real-Time Snapshot of the Cp*Co^{III}-catalyzed Oxidative Alkyne Annulation”
J. Sanjosé-Orduna, D. Gallego, A. Garcia-Roca, E. Martín, J. Benet-Buchholz, M. H. Pérez-Temprano*, *Angew. Chem. Int. Ed.* **2017**, 56, 12137-12141. IF: 12.102.
Inside Cover (volumen 56, issue 40)
- Publications from PhD/Postdoctoral Work:
- [11] “Experimental and Computational Assessment of Reactivity and Mechanism in C(sp³)-N Bond-Forming Reductive Elimination from Palladium(IV)”
I. M. Pendleton,‡ M. H. Pérez-Temprano,‡ M. S. Sanford*, P. M. Zimmerman*, *J. Am. Chem. Soc.* **2016**, 138, 6049-6060. IF: 13.858
- [10] “C(sp³)-O Bond Forming Reductive Elimination from Pd(IV) with Diverse Oxygen Nucleophiles”
N. M. Camasso, M. H. Pérez-Temprano, M. S. Sanford*, *J. Am. Chem. Soc.* **2014**, 136, 12771-12775. IF: 12.113

Curriculum Vitae: Dr. Mónica H. Pérez-Temprano (November 2019)

- [9] "Cross Alkyl-Aryl versus Homo Aryl-Aryl Coupling in Palladium-Catalyzed Coupling of Alkyl-Gold(I) and Aryl-Halide"
D. Carrasco, D.; [M. H. Pérez-Temprano](#), J. A. Casares*, P. Espinet*, *Organometallics*, **2014**, 33, 3540-3545. IF: 4.126
- [8] "Competition between sp³-C-N vs sp³-C-F Reductive Elimination from Pd^{IV} complexes"
[M. H. Pérez-Temprano](#), J. M. Racowski, J. W. Kampf, M. S. Sanford*, *J. Am. Chem. Soc.* **2014**, 136, 4097-4100. IF: 12.113.
Highlighted in Science 2014, 343, 1178 as Editor's Choice.
- [7] "Stille Coupling Involving Bulky Groups Feasible with Gold Cocatalyst"
J. del Pozo, D. Carrasco, [M. H. Pérez-Temprano](#), M. Garcia-Melchor, R. Alvarez, J. A. Casares*, P. Espinet*, *Angew. Chem. Int. Ed.* **2013**, 52, 2189-2193. IF: 11.336
- [6] "Bimetallic Catalysis using Transition and Group 11 Metals: An Emerging Tool for C–C Coupling and Other Reactions"
[M. H. Pérez-Temprano](#), J. A. Casares*, P. Espinet*, *Chem. Eur. J.* **2012**, 18, 1864-1884. IF: 5.831
- [5] "Strong Metallophilic Interactions in the Palladium Arylation by Gold Aryls,"
[M. H. Pérez-Temprano](#), J. A. Casares*, A. R. de Lera, R. Alvarez*, P. Espinet*, *Angew. Chem. Int. Ed.* **2012**, 51, 4917-4920. IF: 13.734
- [4] "Stille Coupling of Alkynyl Stannane and Aryl Iodide, a Many Pathways Reaction. The Importance of Isomerization"
[M. H. Pérez-Temprano](#), A. M. Gallego, J. A. Casares*, P. Espinet*, *Organometallics*, **2011**, 30, 611-617. IF: 3.963
- [3] "A Convenient Quick Synthesis of SnBu₂RCI Derivatives"
N. Carrera, [M. H. Pérez-Temprano](#), A. C. Albeniz*, J. A. Casares*, P. Espinet*, *Organometallics*, **2009**, 28, 3957-3958. IF: 4.204
- [2] "The C–C Reductive Elimination in Palladium Complexes: A DFT Study Supported by Experiments. The role of the coupling additives"
M. Perez-Rodriguez, A. A. C. Braga, M. Garcia-Melchor, [M. H. Pérez-Temprano](#), J. A. Casares, G. Ujaque, A. R. De Lera, R. Alvarez*, F. Maseras*, P. Espinet*, *J. Am. Chem. Soc.* **2009**, 131, 3650-3657. IF: 8.580
- [1] "Observation of a Hidden Intermediate in the Stille Reaction. Study of the Reversal of the Transmetalacion Step,"
[M. H. Pérez-Temprano](#), A. Nova, J. A. Casares*, P. Espinet*, *J. Am. Chem. Soc.* **2008**, 130, 10518-10520. IF: 8.091

Cover Papers



Inside Cover
Paper # 12

Angew. Chem. Int. Ed. **2017**, 56, 12137-12141



Inside Cover
Paper # 13

Chem. Eur. J. **2018**, 24, 11895-11898



Inside Cover
Paper # 17

Chem. Eur. J. **2019**, 25, 9390-9394

INVITED PRESENTATIONS AS GROUP LEADER AT ICIQ:

- [25] Aulin-Erdtman Young Investigator Symposium
[24] Universität Bern, Bern (Switzerland), November 2019
[23] Universität Münster, Münster (Germany), October 2019.
[22] Ruhr-Universität Bochum, Bochum (Germany), October 2019.
[21] IUPAC International Symposia on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS 20), Heidelberg (Germany), July 2019
[20] Symposium in honor of Professor Pablo Espinet, Valladolid (Spain), July 2019
[19] 12th Australasian Organometallic Meeting (OZOM12), Melbourne (Australia), July 2019.
[18] Monash University, Melbourne (Australia), July 2019.
[17] Gordon Research Conference 2019 High Throughput Chemistry and Chemical Biology: Advances in Chemistry and Chemical Biology to Expand the Druggable Proteome, New London (USA), June 2019.

- [16] University of Zurich (UZH), Zurich (Switzerland), April 2019.
- [15] Instituto de Investigaciones Química - cicCartuja (IIQ), Sevilla (Spain), March 2019.
- [14] Universitat Jaume I, Castellón (Spain), November 2018.
- [13] Universidad del País Vasco, San Sebastián (Spain), October 2018
- [12] ACS Publications Forum: Scientific Diversity in Inorganic/Organic Chemistry in Europe, Heidelberg (Germany), October 2018
- [11] 5th CHAOS meeting, Tarragona (Spain) September 2018
- [10] 7th EuCheMS Chemistry Congress, European Young Chemist's Network, Future Leaders symposium, Liverpool (UK), August 2018
- [9] Talented 12 Symposium at the 256th ACS National Meeting, Boston (USA), August 2018
- [8] Universität Heidelberg, Heidelberg (Alemania), 12 de Julio de 2018.
- [7] XXVIII International Conference on Organometallic Chemistry, Florence (Italy), July 2018.
- [6] Carnival Conference Session, University of Cologne, Cologne (Germany), February 2018.
- [5] Max-Planck-Institute für Kohlenforschung, Mülheim an der Ruhr (Germany), February 2018.
- [4] XXXVI Biennial Meeting of the Spanish Royal Society of Chemistry, Sitges (Spain), June 2017.
- [3] 1st ICIQ PhD Day, Tarragona (Spain), June 2017
- [2] Universidad de Valladolid, Valladolid (Spain) May 2017.
- [1] Universidad de Vigo; Vigo (Spain) December 2015

SUPERVISION OF STUDENTS AND POSTDOCTORAL FELLOWS (§ Co-authored Published Papers, see publication list)

10/2015 – present	3 <i>Postdoctoral Researchers</i> : Dr. Sara Martínez, [†] Dr. Daniel Gallego, [†] Dr. Juan Sarria [†]
Group Leader	3 <i>PhD Students</i> : Ángel Luis Mudarra, [†] Jesús San José, [†] Sara López Resano
ICIQ, Spain	4 <i>Master Student</i> : Alèria Garcia, [†] Raül Lleberia, Carlota Odena, [†] Clara Velasco (In progress)
	5 <i>Undergraduate Students</i> : Andreu Moral i Curcó, Milos Selakovic, Helena del Campo, Sergio Barranco, Marc San José
2012 – 2015	2 <i>PhD Students</i> : Nicole M. Camasso, [†] Ian Pendleton [†]
Postdoctoral Researcher	1 <i>Undergraduate Student</i> : James Lawniczak
	University of Michigan
2010 – 2011	1 <i>PhD Student</i> : Desirée M. Carrasco [†]
PhD Student	University of Valladolid, Spain

[†]Co-authored Published Papers

AWARDS RECEIVED BY GROUP MEMBERS

Jesús Sanjosé-Orduna: **2019**: 2019 CAS Future Leaders (<http://bit.ly/2MpFCqu>). **2018**: Cost Action CA15106 (CHAOS) STSM grant (2018); Best Flash Presentation ISOC Marcial Moreno Mañas; “A. Corbella” International Summer School on Organic Synthesis Fellowship; Best organic poster in the RSC Twitter Poster Conference. **2017**: Best Oral Talk at 1st Training School (CHAOS-COST)

Carlota Odena: **2019**: Sant Jordi Bachelor Thesis Award by the Institute of Catalan Studies.

Raül Lleberia: **2017**: Bachelor Thesis (TFG) award given by the Societat Catalana de Química, Universitat Rovira i Virgili

4. OTHER ACTIVITIES

RESPONSABILIDADES INSTITUCIONALES

- 2019 ICIQ Seminar Manager
Member of the Gender Equality Committee at the Institute of Chemical Research of Catalonia (ICIQ)
Selection committee member of the program “Maria Yzuel Fellowship Awards” launched by the Institut de Ciències Fotòniques (ICFO)
- 2018 – present Academic Working Group (Barcelona Institute of Science and Technology, BIST)
Selection committee member of the program “Mother of Science Supporting Grants” launched by the Barcelona Institute of Science and Technology (BIST)
- 2017 – present Examiner member of the Master in Synthesis, Catalysis and Molecular Design (Universitat Rovira i Virgili, URV)

Admission Board of the Master of Multidisciplinary Research in Experimental Science (BIST)

06/2017 Chair of the session "Ligand design for metal-mediated bond-cleavage & bond-forming reactions" of the XXXVI Biennial Meeting of the Spanish Royal Society of Chemistry, Sitges, Spain

JOURNAL / AGENCY REVIEWING

- ♦ Grant reviewer for the ACS Petroleum Research Fund (PRF), MINECO-AEI and European Research Council (ERC).
- ♦ Referee in peer-review for Nature Research, RSC, Wiley and ACS journals (Nature, Nature Chemistry, *J. Am. Chem. Soc.*; *Angew. Chem. Int. Ed.*; *Chem. Sci.*; *Chem. Commun.*; *Chem. Eur. J.*; *Org. Lett.*, *Organometallics*).

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2016 – present Partner member of the COST Action CA15106 "CHAOS: C–H Activation in Organic Synthesis"

2012 – present American Chemical Society (ACS)

2007 – present Spanish Royal Society of Chemistry (RSEQ)
Spanish Organometallic Chemistry Group (GEQO)
Jóvenes Investigadores Químicos (JIQ)

OUTREACH ACTIVITIES / DISSEMINATION / APPEARANCES IN GENERAL MEDIA

- ♦ Dissemination Scientific Research via Twitter
Pérez-Temprano Group (https://twitter.com/Perez_Temprano > 600 followers)
Mónica H. Pérez-Temprano (<https://twitter.com/monicahperez>)
- ♦ Participation in the programme "Bojos per la Química" (Crazy about Chemistry since 2017) organized by the Institute of Chemical Research of Catalonia (ICIQ) in collaboration with Catalunya-La Pedrera Foundation to promote the scientific education of scholars. This includes the participation as plenary speaker in the event "Enllaçats amb L'ICIQ" organized by the "Fellow programme La Pedrera" held in La Pedrera Casa Milà (Barcelona, November 17, 2018).
- ♦ Talks in primary and secondary schools in Tarragona
- ♦ Participation in round tables to talk on the role of women in STEM: (i) "Empowering Women in Science within the BIST Community" organized by the Barcelona Institute of Science and Technology (BIST), Centre Cívic Urgell, Barcelona (Spain), November 28, 2017; (ii) "Trobada amb científiques de Tarragona" organized by Divulga Tarragona, La Cantonada, Tarragona (Spain), February 12, 2019.
- ♦ Selected by *elcritic.cat* (<http://bit.ly/2HxeVzk>) as one of the 10 women who are revolutionizing Science in Catalonia
- ♦ Communication activities in general media (Tarragona Radio, February 9, 2017; Diari of Tarragona, March 18, 2017; Diari Ara (<http://bit.ly/2T4Oumr>) February 11, 2018; Diari of Tarragona, October 28, 2018) to talk about the role of women in Science or to promote the divulgation of Science
Càpsula de ciència (<http://bit.ly/2Jq9G79>, TV3, January 17, 2018)
ICIQ video (<http://bit.ly/2J8RO03>)
- ♦ Communication activities related with C&EN Talented 12 distinction
(Interviews in Radio Nacional, Onda Cero Tarragona, Televisión Castilla y León, El Norte de Castilla)
Chemical and Engineering News (C&EN) <http://bit.ly/2J9BEni>
YouTube <https://www.youtube.com/watch?v=OEd28-jWbg4>
El Periódico <http://bit.ly/2HvG05P>
La Vanguardia <http://bit.ly/2F3lwhO>
El Diari de Tarragona <http://bit.ly/2XZE003>
Corporació Catalana de Mitjans Audiovisuals (TV3) <http://bit.ly/2TlcZdJ>
Diari T21 <http://bit.ly/2TDcYZ5>