Curriculum Vitae- Julia B. Cordero

March 2025

Personal Information

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Present appointment

- 2022-Present. Professor of Systemic Signalling Biology. Wolfson Wohl Cancer Research Centre. School of Cancer Sciences. University of Glasgow. Glasgow, United Kingdom.
- 2016-Present. Honorary Group Leader. CRUK Scotland Institute. Glasgow, United Kingdom.

Employment History

- 2016-2022. Senior Research Fellow. Wolfson Wohl Cancer Research Centre. Institute of Cancer Sciences. University of Glasgow. Glasgow, United Kingdom.

- 2014-2016. Junior Research Fellow. Wolfson Wohl Cancer Research Centre. Institute of Cancer Sciences. University of Glasgow. Glasgow, United Kingdom

- 2009-2014. Post-doctoral Fellow. The Beatson Institute for Cancer Research. Glasgow, United Kingdom. Principal Investigator: Dr. Owen J. Sansom.

- 2007-2008. Post-doctoral Fellow. Mount Sinai School of Medicine. New York, NY. U.S.A. Principal Investigator: Dr. Ross L. Cagan.

- 2000-2002. Research Assistant. Department of Internal Medicine, Renal Division, Washington University School of Medicine. Saint Louis, MO.

- 1999-2000. Teaching Assistant in a Molecular and Cell Biology course for first year medical students, Cuyo National University School of Medicine. Mendoza, Argentina.

Academic Qualifications

- 2002-2007. Ph.D. degree in the Molecular Cell Biology Program, Washington University School of Medicine. Saint Louis, MO, USA. Thesis Advisor: Dr. Ross L. Cagan
- 1996-1999. “Licenciada en Biología Molecular”, San Luis National University. San Luis, Argentina.

Teaching and Mentoring

Supervision of Graduate Students.

2023 – Present Primary Supervisor**-** Cai Johnson. PhD Student. MVLS-EPSRC/UKRI.

2023 – Present Primary Supervisor**-** Utkarsh Bohre. PhD Student. Beatson CRUK.

2021 – Present Primary Supervisor**-** Jade Phillips. PhD Student. Beatson CRUK.

2021 – Present Primary Supervisor**-** Yuanliangzi Tian. PhD Student. University of Glasgow-China Scholarship Council.

2023- Present Second Supervisor- Jane Lyon. PhD Student. University of Glasgow- CRUK Cancer Centre

2022- Present Second Supervisor-Ignacio Fernandez Guerrero. PhD student. MVLS DTP. University of Glasgow

2020 – 2022 Second Supervisor**-** Diana Marcu. PhD Student. MVLS DTP. University of Glasgow

2018 – 2023 Primary Supervisor**-** Andre Medina. PhD Student. Beatson CRUK. Currently: Post-doctoral Researcher. Charité, Berlin.

2014 – 2018 Primary Supervisor**-** Lynsey Carroll. PhD Student (Graduated). **BBSRC DTP.** University of Glasgow. Currently: Regulatory Affairs Associate at CS Life Sciences

2014 – 2018 Primary Supervisor- Mate Naszai. PhD Student (Graduated). **Leadership Fellowship. MVLS**. **University of Glasgow.** *Awarded best non-clinical PhD Thesis of 2018***.** Currently: Graduate Medical student. University of Oxford, UK.

2014 – 2017 Primary Supervisor**-** Joseph Hodgson. PhD Student (Graduated). Beatson CRUK.

2014 – 2017 Primary Supervisor**-** Christin Bauer. PhD Student (Graduated). *Awarded the 2016 Dr John Paul Career Award by the CRUK Beatson Institute Beatson CRUK*. Currently: Post-doctoral Fellow, AstraZeneca, UK.

Undergraduate Student Supervision

2014 – Present I have mentored over 15 undergraduate students, including Honors, Masters, and bachelor's degree students.

Awards/Honors

11/12/2024- Recognizing Excellence in Teaching (RET) Fellowship. University of Glasgow.

Funding obtained as Principal Investigator

- **2024-2026.** Royal Society International Cooperation Grant. Principal Investigator (£12,000)

- **2023-2028.** Wellcome Trust Senior Research Fellowship. Principal Investigator (£2,000,000)

- **2020-2023.** Cancer Research U.K. (CRUK) Pioneer Award. *Drosophila* as a model system to study tumour related behavioural changes (£200,000)

- **2015-2023**. Wellcome Trust/Royal Society Sir Henry Dale Fellowship. Principal Investigator (£1,145,000)

- **2018-2019.** Wellcome Trust Institutional Strategic Support- Excellence and Innovation Catalyst Fund. Transcriptional profiling of cell subpopulations in the adult *Drosophila* midgut. (£17,960)

- **2016-Present.** Core Institutional Funds. CRUK Scotland Institute (£225,000 per year)

- **2014-2019.** Leadership Fellowship. College of Medical, Veterinary and Life Sciences. University of Glasgow. Principal Investigator (£125,000)

- **2013-2018.** Royal Society Dorothy Hodgkin Fellowship. Principal Investigator (£314,213)

Presentations as an invited speaker (selective list).

- **Highlighted Speaker-** 7th International Insect Hormone Workshop (IIHW 2025). June 15–21, 2025. Copenhagen, Denmark.
- “Spatio-temporal control of growth and morphogenesis”. Fondation des Treilles from May 5th to 10th, 2025. The Fondation des Treilles, France.
- ‘Developmental Biology and Stem Cell Course’. Institute Curie. 21st of October 2024. Paris, France.
- ‘Pasteur Institute Developmental and Stem Cell Biology Seminar Series’. 7th of June, 2024. Paris, France.
- 3rd FEBS EMBO Lecture Course ‘Molecular Mechanisms of Interorgan Crosstalk in Health and Disease’. 9th-17th of May 2024. Spetses, Greece.
- EMBO|EMBL Symposium on Organismal Physiology. 23rd-26th April 2024.
- ‘Developmental Biology and Stem Cell Course’. Institute Curie. 16th of October 2023. Paris, France.
- ‘Cologne Seminars on Ageing’. CECAD Research Centre and Max Planck Institute of Ageing Seminar Series. 21st of September 2023. Cologne, Germany.
- ‘2023 Tissue Repair and Regeneration’ Gordon Research Conference. 31st of May 2023. New Hampshire, USA.
- IRB Cancer Plenary Symposium. 26th of May 2023. Barcelona, Spain
- Department of Cellular and Physiological Sciences. University of British Columbia. 24th of February 2023. Vancouver, Canada.
- Genetics Colloquium. UW-Madison & Morgridge Institute. 22nd of February 2023. Madison, USA
- London Stem Cell Network Symposium. 25th October. The Crick Institute.
- Intestinal Stem Cell-Niche Interactions in Health and Disease. 22nd-24th of May 2022. Cancun, Mexico.
- Department of Biochemistry and Molecular Biology. Johns Hopkins University, Bloomberg School of Public Health. 25th of April 2022. Baltimore, MD, USA.
- Developmental Biology Seminar Series. Gurdon Institute, University of Cambridge. 12th of March 2021. Cambridge, UK.
- Brain-body Interactions Symposium. FENS2020 Forum. 11th-15th of July. Glasgow, UK.

- Max Planck Institute for Biophysical Chemistry. Göttingen, Germany. 24th of June 2020. Online.
- Cell and Developmental Biology Department. University College London. 12th of December 2019. London, UK.
- External Seminar Speaker. Centre de Biologie du Development. 25th of October 2019. Toulouse, France.

Organization of meetings and seminar series

- Chair of the 'Disease Models Workshop' at the 27th European *Drosophila* Conference. 20th-23rd of October, 2023. Lyon, France.
- Organizer of the 'Gut Workshop' at the 27th European *Drosophila* Conference. 20th of October, 2023. Lyon, France.

- Organiser of the 2023 CRUK Beatson International Conference. 'Interorgan communication in cancer'. 16th-19th of July, 2023. Glasgow, UK.

- Organizer of 'Brain-body interactions: crosstalk between the brain and other organs in physiology and disease' Symposium. FENS2020 Forum. 11th-15th of July. Glasgow, UK.

- Organizer of the 'Gut Workshop' at the 25th European *Drosophila* Conference. 22th- 25th of September 2017. London, UK.

Editorial, Reviewer and Scientific Advisor responsibilities

- Molecular, Cellular & Physiological Sciences Early Career Advisory Group Member. The Wellcome Trust (2022-2025)

- Scientific Advisory and Selection Committee Member for Faculty Recruitment at University of Copenhagen, Copenhagen, Denmark (2024).

- Scientific Advisory and Selection Committee Member for Faculty Recruitment at Centre for Organismal Science (COS), Heidelberg, Germany (2023).

- Strategic Management Board Member. BBSRC-BBR grant. PI: Scott Waddell, Researcher Co-Investigator: Markus Toegel. Centre for Neural Circuits and Behaviour. University of Oxford, UK. (2021-2024)

- Elected Core member of Panel C. BBSRC. (2022- Present)

- Elected member of the *Drosophila* Pool of Experts. BBSRC. (2020-Pesent)

- Member of the NCR3s Skills and Knowledge Transfer Assessment Panel (2017-2019).

- Member of the Editorial Board 'Scientific Reports' (2015-Present).

- Member of the Editorial Board 'Frontiers in Physiology' (2020-Present).

- Reviewer of Journals: Nature, Cell Stem Cell, Dev. Cell, Development, Nature Comms, Current Biol., eLIFE, Review Commons, EMBO J, Cell Reports, Stem Cell Reports, Nature Reviews Cancer, Science Advances.

• Reviewer for national funding agencies: Wellcome Trust, BBSRC, MRC, The Academy of Medical Sciences, Bowel Cancer Research.

• Reviewer for international funding agencies: European Research Council (Starting and Consolidator ERC applications), Israel Science Foundation (ISF), Fondation pour la Recherche Médicale (FRM), Research Council KULeuven, Dutch Research Council (NOW).

Full list of research publications (*Co-First; [1]Corresponding)

- Medina, A.B., Perochon, J., Johnson, C., Polcowñuk, S., Tian, Y., Yu, Y. & **Cordero, J.B.** Neuroendocrine Control of Intestinal Regeneration Through the Vascular Niche in Drosophila. *bioRxiv*, 2024.2009.2010.612352 (2024).

- Bellec, K., Carroll, L.R., Pennel, K.A., Tian, Y., Yu, Y., Cameron, A.R., Herédia, F., Gontijo, A.M., Edwards, J., **Hayashi, R.** & **Cordero, J.B[1]**. Non-gonadal PIWI protein, Aubergine, regulates regenerative stem cell proliferation and tumourigenesis in the Drosophila adult intestine. *bioRxiv*, 2024.2011.2004.621896 (2024).

- Hodgson, J. A., Parvy, J.-P., Yu, Y., Vidal, M. and **Cordero, J. B[1].** (2021) *Drosophila* larval models of invasive tumorigenesis for in vivo studies on tumour/peripheral host tissue interactions during cancer cachexia. International Journal of Molecular Sciences, 22(15), 8317. (doi: 10.3390/ijms22158317).

- Guillermin O, Angelis N, Sidor CM, Ridgway R, Baulies A, Kucharska A, Antas P, Rose MR, **Cordero J**, Sansom O, Li VSW, Thompson BJ. Wnt and Src signals converge on YAP-TEAD to drive intestinal regeneration. EMBO J. 2021 Jul 1;40(13):e105770. doi: 10.15252/embj.2020105770. Epub 2021 May 5. PMID: 33950519

- Nászai M., Bellec K., Yu Y, Román-Fernández A., Sandilands E., Johansson J., Campbell A.D., Norman J.C., Sansom O.J., Bryant D.M., **Cordero J.B[1].** RAL GTPases mediate EGFR-driven intestinal stem cell proliferation and tumourigenesis. Elife. 2021 Jun 7;10:e63807.

- Perochon, J., Aughey, G.N., Southall, T.D., and **Cordero, J.B[1]**. Dynamic adult tracheal plasticity drives stem cell adaptation to changes in intestinal homeostasis. Nature Cell Biology, 23(5), pp. 485-496. (doi: 10.1038/s41556-021-00676-z). *News and Views. Nature Cell Biology,* 23, 580–582 (2021). *doi.org/10.1038/s41556-021-00695-w*

-Parvy JP[1], Yu Y, Dostalova A, Kondo S, Kurjan A, Bulet P, Lemaitre B, Vidal M, **Cordero JB[1]**. The antimicrobial peptide Defensin cooperates with Tumour Necrosis Factor to drive tumour cell death in *Drosophila*. Elife. 2019 Jul 30;8. pii: e45061. doi: 10.7554/eLife.45061. *Recommended by the Faculty of 1000.*

-Johansson J*, Naszai M*, Hodder M, Pickering K, Miller BW, Ridgway RA, Yu Y, Peschard P, Brachmann B, Campbell AD, **Cordero, JB[1]**, Sansom, OJ[1]. RAL GTPases drive intestinal stem cell function and regeneration through internalization of WNT signalosomes. Cell Stem Cell. Apr 4;24(4):592-607.e7. doi: 10.1016/j.stem.2019.02.002. *Commentary in Cell Stem Cell 2019 Apr 4;24(4):499-500. doi: 10.1016/j.stem.2019.03.008.*

-Scopelliti A[1*], Bauer C*, Yu Y, Zhang T, Krüspig B, Murphy DJ, Vidal M, Maddocks OK, **Cordero JB[1]**. A neuronal relay mediates a nutrient responsive gut/fat body axis regulating energy homeostasis in adult Drosophila. Cell Metab. Oct 15. pii: S1550-4131(18)30629-6. doi: 10.1016/j.cmet.2018.09.021. *Recommended by the Faculty of 1000.*

-Tian A, Benchabane H, Wang Z, Zimmerman C, Xin N, Perochon J, Kalna G, Sansom OJ, Cheng C, **Cordero JB**, Ahmed Y. Intestinal stem cell overproliferation resulting from inactivation of the APC tumor suppressor requires the transcription cofactors Earthbound and Erect wing. PLoS Genet. 2017 Jul 14;13(7):e1006870. doi: 10.1371/journal.pgen.1006870.

-Scopelliti A[1], Bauer C, **Cordero J**[1] and Vidal M. Bursicon-α subunit modulates dLGR2 activity in the adult Drosophila melanogaster midgut independently to Bursicon-β. Cell Cycle. 2016 Jun 17;15(12):1538-44.

-Elbediwy A, Vincent-Mistiaen ZI, Spencer-Dene B, Stone RK, Boeing S, Wculek SK, **Cordero J**, Tan EH, Ridgway R, Brunton VG, Sahai E, Gerhardt H, Behrens A, Malanchi I, Sansom OJ, Thompson BJ. Integrin signalling regulates YAP and TAZ to control skin homeostasis. Development. 2016 May 15;143(10):1674-87.

-Faller WJ, Jackson TJ, Knight JR, Ridgway RA, Jamieson T, Karim SA, Jones C, Radulescu S, Huels DJ, Myant KB, Dudek KM, Casey HA, Scopelliti A**, Cordero JB**, Vidal M, Pende M, Ryazanov AG, Sonenberg N, Meyuhas O, Hall MN, Bushell M, Willis AE, Sansom OJ. mTORC1 mediated translational elongation limits intestinal tumour initiation and growth. Nature. 2015 Jan 22;517(7535):497-500.

-**Cordero JB**, Ridgway RA, Valeri N, Nixon C, Frame MC, Muller WJ, Vidal M, Sansom OJ. c-Src drives intestinal regeneration and transformation. EMBO J. 2014 Jul 1;33(13):1474-91. *Highlighted in EMBO J 2014 Jul 1;33(13):1423.*

-Scopelliti A*, **Cordero JB***[1], Diao F, Strathdee K, White BH, Sansom OJ, Vidal M[1]. Local control of intestinal stem cell homeostasis by enteroendocrine cells in the adult *Drosophila* midgut. Curr Biol. 2014 Jun 2;24(11):1199-211.

-Valeri N, Braconi C, Gasparini P, Murgia C, Lampis A, Paulus-Hock V, Hart JR, Ueno L, Grivennikov SI, Lovat F, Paone A, Cascione L, Sumani KM, Veronese A, Fabbri M, Carasi S, Alder H, Lanza G, Gafa' R, Moyer MP, Ridgway RA, **Cordero J**, Nuovo GJ, Frankel WL, Rugge M, Fassan M, Groden J, Vogt PK, Karin M, Sansom OJ, Croce CM. microRNA-135b promotes cancer progression acting as a downstream effector of oncogenic pathways in colon cancer. Cancer Cell. 2014 Apr 14;25(4):469-83.

-Lourenço FC, Munro J, Brown J, **Cordero J**, Stefanatos R, Strathdee K, Orange C, Feller SM, Sansom OJ, Vidal M, Murray GI, Olson MF. Reduced LIMK2 expression in colorectal cancer reflects its role in limiting stem cell proliferation. Gut 2014 Mar;63(3):480-93.

-Myant KB, Scopelliti A, Haque S, Vidal M, Sansom OJ[1], **Cordero JB**[1]. Rac1 drives intestinal stem cell proliferation and regeneration. Cell Cycle. 2013 Sep 15;12(18):2973-7.

-Myant KB, Cammareri P, McGhee EJ, Ridgway RA, Huels DJ, **Cordero JB**, Schwitalla S, Kalna G, Ogg EL, Athineos D, Timpson P, Vidal M, Murray GI, Greten FR, Anderson KI, Sansom OJ. ROS production and NF-B activation triggered by Rac1 is required for Wnt driven intestinal stem cell proliferation and colorectal cancer initiation. Cell Stem Cell 2013 Jun 6;12(6):761-73.

- Radulescu S, Ridgway RA, **Cordero J**, Athineos D, Salgueiro P, Poulsom R, Neumann J, Jung A, Patel S, Woodgett J, Barker N, Pritchard DM, Oien K, Sansom OJ. Acute WNT signalling activation perturbs differentiation within the adult stomach and rapidly leads to tumour formation. Oncogene. 2013 Apr 18;32(16):2048-57.

- **Cordero JB***[1], Stefanatos RK*, Myant K, Vidal M, Sansom OJ[1]. Non-autonomous Jak/Stat and EGFR signaling crosstalk mediate intestinal stem cell proliferation following Apc loss in the *Drosophila* adult midgut. Development. 2012 Dec;139(24):4524-35. *Highlighted in Development 2012 139:e2401 and Nature Reviews in Cancer 13, 8-9 (January 2013)| doi:10.1038/nrc3427.*

- **Cordero JB**, Stefanatos RK, Scopelliti A, Vidal M, Sansom OJ. Inducible progenitor-derived Wingless regulates adult midgut regeneration in *Drosophila*. EMBO J. 2012 Oct 3;31(19):3901-17.

-Larson DE, Johnson RI, Swat M, **Cordero JB**, Glazier JA and Cagan RL. A computer simulation of long-range patterning in the Drosophila pupal eye. PLoS Comput Biol. 2010 Jul 1;6:e1000841.

- **Cordero JB**, Macagno JP, Stefanatos RK, Strathdee KE, Cagan RL and Vidal M. Oncogenic Ras transforms a host TNF tumour-suppressor activity into tumour- promoter. Dev Cell. 2010 Jun 15;18(6):999-1011.

- **Cordero JB** and Cagan R. L. Canonical Wingless signaling regulates cone cell specification in the Drosophila retina. Dev Dyn. 2010 Mar;239(3):875-84.

- **Cordero J**, Vidal M and Sansom O. APC as a master regulator of intestinal homeostasis and transformation: from flies to vertebrates. Cell Cycle. 2009 Sep 15;8(18):2926-31.

- **Cordero JB**, Larson DE, Craig CR, Hays R, Cagan R. Dynamic Decapentaplegic signaling regulates patterning and adhesion in the Drosophila pupal retina. Development 2007 134: 1861-1871.

- **Cordero J**, Jassim O, Bao S, Cagan R. A role for wingless in an early pupal cell death event that contributes to patterning the Drosophila eye. Mech Dev. 2004 Dec;121(12):1523-30.

- **Cordero JB**, Cozzolino M, Lu Y, Vidal M, Slatopolsky E, Stahl PD, Barbieri MA, Dusso AS. 1,25-Dihydroxyvitamin D down-regulates cell membrane growth- and nuclear growth-promoting signals by the epidermal growth factor receptor. J Biol Chem. 2002 Oct 11;277(41):38965-71.

Invited Reviews and Commentary Articles:

- Medina A., Bellec K., Polcowñuk S., **Cordero JB**. Investigating local and systemic intestinal signalling in health and disease in *Drosophila*. Dis Models and Mech. 2022 Mar 1;15(3):dmm049332. https://doi.org/10.1242/dmm.049332.

- Tumors Disrupt the Blood-Brain Barrier at a Distance. The Scientist. https://www.the-scientist.com/news-opinion/tumors-disrupt-the-blood-brain-barrier-at-a-distance-69171

- Bellec K, **Cordero JB**. The Peroxisome: A New Player in Intestinal Epithelial Repair. Dev Cell. 2020 Apr 20;53(2):131-132. doi: 10.1016/j.devcel.2020.03.023.

- Parvy JP, Hodgson JA, **Cordero JB**. *Drosophila* as a Model System to Study Nonautonomous Mechanisms Affecting Tumour Growth and Cell Death. Biomed Res Int. 2018 Mar 13;2018:7152962.

- Perochon J, Carroll LR, **Cordero JB**. Wnt Signalling in Intestinal Stem Cells: Lessons from Mice and Flies. Genes (Basel). 2018 Mar 2;9(3). pii: E138. doi: 10.3390/genes9030138.

- Nászai M, **Cordero JB**. Intestinal Stem Cells: Got Calcium? Curr Biol. Feb 8;26(3):R117-9. Invited Dispatch article on Deng H et al. Signal integration by Ca^{2+} regulates intestinal stem-cell activity. Nature. 2015 Dec 2. doi: 10.1038/nature16170.

- Nászai M, Carroll LR, **Cordero JB**. Intestinal stem cell proliferation and epithelial homeostasis in the adult *Drosophila* midgut. Insect Biochem Mol Biol. 2015 May 27. pii: S0965-1748(15)30003-5.

Personal Interview:

- **Cell scientist to watch - Julia Cordero**. J Cell Sci (2021) 134 (8): jcs258668. https://doi.org/10.1242/jcs.258668