

CURRICULUM VITAE Per Uhlén, MS, PhD

ORCID 0000-0003-1446-1062

Born 5 July 1969 in Uppsala, Sweden
Marital status Married with two children (twins born in 2012)

CURRENT POSITION Professor (full professor since October 2014)

AFFILIATION Karolinska Institutet
Department of Medical Biochemistry and Biophysics (MBB)

Visiting address Biomedicum (floor 6, office C0669), Solnavägen 9
Mailing address Karolinska Institutet, Solnavägen 9 (6C), SE-171 77 Stockholm, Sweden
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EDUCATION

PhD - Graduate

2002 May 13 Karolinska Institutet, Stockholm, Sweden
Doctor of Philosophy (PhD), Supervisors: Dr. Brismar and Dr. Aperia

MS - Undergraduate

1998 Feb 25 Royal Institute of Technology (KTH), Stockholm, Sweden
Master of Science in engineering physics (MS), CivIng - Teknisk Fysik

POSTDOC

2003-2005 Yale University, New Haven, CT, USA
(Dr. Ehrlich's lab, Dept. of Pharmacology/Cellular & Molecular Physiology)
2004 Marine Biological Laboratory (MBL), Woods Hole, MA, USA
(Dr. Ehrlich's lab, The Neuroscience Institute)

PROFESSIONAL APPOINTMENTS

2017-2020 Guest Professor: Keio University, Shinanomachi, Tokyo, Japan
2017-2018 Adjunct Researcher: RIKEN Brain Science Institute, Hirosawa, Wako, Saitama, Japan
Since 2014- Professor: Dept. of Medical Biochemistry and Biophysics, Karolinska Institutet,
(Full Professor in Dynamic Imaging of Cell Signaling: 1 October 2014)
2010 Visiting Professor: Dept. of Pharmacology, Keio University, Shinanomachi, Tokyo, Japan
2008-2014 Associate Professor: Dept. of Medical Biochemistry and Biophysics, Karolinska Institutet,
(Docent in Cell Biology: 9 April 2008)
2006-2008 Assistant Professor: Dept. of Medical Biochemistry and Biophysics, Karolinska Institutet

FELLOWSHIPS AND AWARDS

2022 Anna-Stina and John Mattson's Memorial Foundation Award, Sweden
2020 StratCan Blue Sky Award, Sweden
2019 Swedish Cancer Society Extended Support Award, Sweden
2011 External Research Assessment (ERA 2010) at Karolinska Institutet – Ranked as *Excellent*
2010 Senior Researcher Award, Swedish Research Council (VR), Sweden
2009 Research Fellow Award, Knut and Alice Wallenberg Foundation (KAW), Sweden
2007 Max and Edit Follin's Medical Research Prize, Sweden
2006 Assistant Professor Award, Swedish Research Council (VR), Sweden
2005 Young Investigator Award, Karolinska Institutet's Foundation, Sweden
2004 Leading Bio-Scientists of the Next Decade Award, Roche, Switzerland

RESEARCH GROUP**Postdoctoral scientists**

Ilse Eidhof, PhD (2022-), Judith Kreutzmann, PhD (2022-), Naoya Niwa, MD PhD (2021-), Shigeaki Kanatani, PhD (2012-), Songbai Zhang, MD PhD (2008-),

PhD students

Yue Li (reg: 13 Sept 2021, half: -), Ibrahim Al Rayyes (reg: 27 June 2018, half: -),

FORMER RESEARCH STAFF**Former PhD students**

Dagmara Kaczynska (defense: 14 May 2020), Ivar Dehnisch (defense: 4 April 2019), Erik Smedler (defense: 12 Jun 2017), Paola Rebellato (defense: 13 Dec 2013), Marie Karlsson (defense: 4 Jan 2011), Seth Malmersjö (defense: 12 Dec 2008), [Co-supervised 17 former PhD students]

Former postdocs

Zoe West (2021-2023), Keishiro Fukumoto (postdoc 2018-2020), Lauri Louhivuori (postdoc 2016-2020), Noboyuki Takana (postdoc 2015-2018), Manuel Varas-Godoy (postdoc 2013-2015), Cristian Ibarra (postdoc 2009-2013), Simone Codeluppi (postdoc 2011-2013), Nicolas Fritz (postdoc 2006-2012), Katsutoshi Nakahata (postdoc 2008-2009), Hiromi Hiyoshi (postdoc 2006-2009), Luc Desfrere (postdoc 2005-2006)

GRANTS

Swedish Research Council (VR), Swedish Cancer Society (CF), Swedish Childhood Cancer Fund (Barncancerfonden), Swedish Brain Foundation (Hjärnfonden), Knut and Alice Wallenberg Foundation (KAW), The Cancer Society in Stockholm, British Heart Foundation, and more.

NETWORKS/CENTERS

BIC: Director of the Biomedicum Imaging Core (BIC) at the Karolinska Institutet [www.ki.se/bic] (2006 -)

AD HOC REVIEWER FOR SCIENTIFIC JOURNALS

Nature Review Cancer, Nature Biomedical Engineering, Nature Neuroscience, Nature Methods, Nature Communications, Journal of Clinical Investigations, PNAS, EMBO, iScience, eLIFE, Science Signaling, Cell Death & Differentiation, Cell Death & Disease, Stem Cells, PLoS, ECR, JBC, AJP, BMC, and more.

COMMISSIONS OF TRUST

Board member: Member of KI's recruitment board (2023-2026) and infrastructure board (2023-2025)

Scientific grant evaluations: The Science Foundation – FIRST, Israel (2007); Karolinska Institutet's Doctoral (KID) Sweden, (2008 - 2011(chair), 2013); The National Science Foundation (NSF), USA (2009); Jeansson's Foundations, Sweden (2010 – 2023); The Swedish Research Council (Vetenskapsrådet - VR), Sweden (2012, 2022, 2023); International Society for Stem Cell Research, USA (2014); Wellcome Trust, UK (2016); SciLifeLab, Sweden (2017, 2018); Cancer Research UK, UK (2018); Philipson's Foundation, Sweden (2018 - 2023); UK Research and Innovation, UK (2019, 2020); Österreichischer Wissenschaftsfonds FWF, Austria, (2021); Dutch Research Council (NWO), Netherlands (2022); Deutsche Forschungsgemeinschaft (DFG), Germany (2022); Breakthrough Cancer Research, Ireland (2023);

Academic position evaluation: Academic Promotion as Docent, Karolinska Institutet, Sweden (2017); Academic Promotion as Reader, University of Edinburgh, Scotland, UK (2020); Academic Promotion as Lecturer, The Chinese University of Hong Kong (CUHK), Hong Kong (2020); Karolinska Institutet's Assistant Professor (Biträdande Lektor) programme, Sweden (2020 – 2021); Academic Promotion as Personal Chair, University of Edinburgh, Scotland, UK (2022);

PUBLICATIONS

Published papers 93, first/last/corresponding author 38, citations 6258, h-index 41, i10-index 78

PUBLICATIONS – Per Uhlén**Bibliometric parameters**

Published papers 93, first/last/corresponding author 38, citations 6258, h-index 41, i10-index 78

Original published articles (‡ corresponding author, † equal contribution)

1.* **Uhlén P†**, Laestadius Å†, Jahnukainen T, Söderblom T, Bäckhed F, Celsi G, Brismar H, Normark S, Aperia A, Richter-Dahlfors A "α-haemolysin of Uropathogenic *E.coli* Induces Ca²⁺ Oscillations in Renal Epithelial Cells"

Nature 405, 6787, 694-697 (2000)

2. Aizman O†, Brismar H†, **Uhlén P**, Zettegren E, Levey A, Forssberg H, Greengard P, Aperia A "Anatomical and Physiological Evidence for D₁ and D₂ Dopamine Receptor Colocalization in Neostriatal Neurons"

Nature Neuroscience 3(3), 226-230 (2000)

3. Aizman O†, **Uhlén P†**, Lal M, Brismar H, Aperia A "Ouabain, a Steroid Hormone that Signals with Slow Calcium Oscillations"

Proc Natl Acad Sci USA Nov 6;98(23):13420-4 (2001)

4. **Uhlén P‡** "Visualization of Na,K-ATPase Interacting Proteins using FRET Technique"

Ann NY Acad Sci. Apr;986:514-518 (2003)

5. Miyakawa-Naito A†, **Uhlén P†**, Lal M, Aizman O, Mikoshiba K, Brismar H, Zelenin S, Aperia A "Cell Signaling Microdomain with Na,K-ATPase and Inositol 1,4,5-Trisphosphate Receptor Generates Calcium Oscillations"

J Biol Chem. Dec 12; 278(50): 50355-61 (2003)

6. Jochenning FW, Wenk MR, **Uhlén P**, DeGray B, Lee E, DeCamilli P, Ehrlich BE "InsP₃-Mediated Intracellular Calcium Signaling is Altered by Expression of Synaptojanin-1"

Biochem J. Sep 1; 382(Pt 2): 687-94 (2004)

7. **Uhlén P‡** "Spectral Analysis of Calcium Oscillations"

Science STKE Nov 09;(258):p115 (2004)

8. Estrada M, Espinosa A, Gibson CJ, **Uhlén P**, Jaimovich E "Capacitative Calcium Entry in Testosterone-Induced Intracellular Calcium Oscillations in Myotubes"

J Endocrinol. 184, 371-379 (2005)

9. Jacob SN, Choe CU, **Uhlén P**, DeGray B, Yeckel MF, Ehrlich BE "Signaling Micro-Domains Regulate InsP₃-Mediated Intracellular Calcium Transients in Cultured Neurons"

J Neuroscience Mar 16;25(11):2853-64 (2005)

10. Söderblom T, Oxhamre C, Wai SN, **Uhlén P**, Aperia A, Uhlén BE, Richter-Dahlfors A "Effects of the Escherichia coli toxin cytolysin A on mucosal immunostimulation via epithelial Ca²⁺ signalling and Toll-like receptor 4"

Cell Microbiol. Jun;7(6):779-88 (2005)

11. Estrada M, **Uhlén P**, Ehrlich BE "Calcium Oscillations Induced by Testosterone Enhance Neurite Outgrowth"

J Cell Science Feb 15;119(Pt 4):733-43 (2006)

12. **Uhlén P**†, Burch P, Ivins Zito C, Estrada M, Ehrlich BE, Bennett AM “Gain-of-Function/Noonan Syndrome SHP-2/*Ptpn11* Mutants Enhance Calcium Oscillations and Impair NFAT Signaling” *Proc Natl Acad Sci USA* Feb 14;103(7):2160-5 (2006)
13. Kowalewski JM, **Uhlén P**, Kitano H, Brismar H “Modeling the Impact of Store-Operated Ca²⁺ Entry on Intracellular Ca²⁺ Oscillations” *Math Biosci.* Dec;204(2):232-49 (2006)
14. Zhang S†, Malmersjö S†, Li J, Ando H, Aizman O, **Uhlén P**, Mikoshiba K, Aperia A “Distinct Role of the N-terminal Tail of the Na,K-ATPase Catalytic Subunit as a Signal Transducer” *J Biol Chem.* Aug 4;281(31):21954-62 (2006)
15. Edman L, Mira H, Erices A, Malmersjö S, Andersson E, **Uhlén P**, Arenas E “Alpha-chemokines regulate proliferation, neurogenesis, and dopaminergic differentiation of ventral midbrain precursors and neurospheres” *Stem Cells* Jul;26(7):1891-900 (2008)
16. Norberg E, Gogvadze V, Ott M, Horn M, **Uhlén P**, Orrenius S, Zhivotovsky B “An Increase in Intracellular Ca²⁺ is Required for the Activation of Mitochondrial Calpain to Release AIF During Cell Death” *Cell Death Differ.* Dec;15(12):1857-64 (2008)
17. Desfrere L†, Karlsson M†, Hiyoshi H†, Malmersjö S, Nanou E, Estrada M, Miyakawa A, Lagercrantz H, El Manira A, Lal M, **Uhlén P**† “Na,K-ATPase Signal Transduction Triggers CREB Activation and Dendritic Growth” *Proc Natl Acad Sci USA* Feb 17;106(7):2212-7 (2009)
18. Altamirano F, Oyarce C, Silva P, Toyos M, Wilson C, Lavandero S, **Uhlén P**, Estrada M “Testosterone induces cardiomyocyte hypertrophy through mTOR complex 1 pathway.” *J Endocrinol.* Aug;202(2):299-307 (2009)
19. Zheng Y, Vertuani S, Nyström S, Audebert S, Meijer I, Tegnebratt T, Borg JP, **Uhlén P**, Majumdar A, Holmgren L “Angiotensin-Like Protein 1 Controls Endothelial Polarity and Junction Stability During Sprouting Angiogenesis” *Circulation Research* Jul 31;105(3):260-70 (2009)
20. Malmersjö S, Liste I, Dyachok O, Tengholm A, Arenas E†, **Uhlén P**† “Ca²⁺ and cAMP Signaling in Human Embryonic Stem Cell-Derived Dopamine Neurons” *Stem Cells Dev.* Sep;19(9):1355-64 (2010)
21. **Uhlén P**†, Fritz N “Biochemistry of Calcium Oscillations” *Biochem Biophys Res Commun.* May 21;396(1):28-32 (2010)
22. Usoskin D, Zilberter M, Linnarsson S, Hjerling-Leffler J, **Uhlén P**, Harkany T, Ernfors P “En masse in vitro functional profiling of the axonal mechanosensitivity of sensory neurons” *Proc Natl Acad Sci USA* Sep 14;107(37):16336-1634 (2010)
23. Norberg E, Karlsson M, Korenovska O, Szydlowski S, Silberberg G, **Uhlén P**, Orrenius S, Zhivotovsky B “Critical role for hyperpolarization-activated cyclic nucleotide-gated channel 2 in the AIF-mediated apoptosis” *EMBO journal* Nov 17;29(22):3869-3878 (2010)

24. Baczyk D, Kingdom JCP, **Uhlén P** "Calcium Signaling in Placenta"
Cell Calcium May;49(5):350-356 (2011)
25. Andersson T, Duckworth JK, Fritz N, Södersten E, **Uhlén P**, Hermanson O "Noggin and Wnt3a enable BMP4-dependent differentiation of telencephalic stem cells into GluR-agonist responsive neurons"
Mol Cell Neurosci. May;47(1):10-18 (2011)
26. Zhang S, Fritz N, Ibarra C, **Uhlén P** "Inositol 1,4,5-Trisphosphate Receptor Subtype-Specific Regulation of Calcium Oscillations"
Neurochem Res. Jul;36(7):1175-1185 (2011)
27. Zhao J, Liu T, Jin S, Wang X, Qu M, **Uhlén P**, Tomilin N, Shupliakov O, Lendahl U, and Nistér M "Human MIEF1 recruits Drp1 to mitochondrial outer membranes and promotes mitochondrial fusion rather than fission"
EMBO journal Jun 24;30(14):2762-78 (2011)
28. Tofighi R, Wan Ibrahim WN, Rebellato P, Andersson PL, **Uhlén P**, Ceccatelli S "Non-dioxin like polychlorinated biphenyls interfere with neuronal differentiation of embryonic neural stem cells"
Toxicol Sci. Nov;124(1):192-201 (2011)
29. Ferreira P, Holmgren G, Veiga MI, **Uhlén P**, Kaneko A, Gil JP "PfMDR1: mechanisms of transport modulation by functional polymorphisms"
PLoS ONE 6(9):e23875 (2011)
30. Lundgren TK, Nakahata K, Fritz N, Rebellato P, Zhang S, **Uhlén P** "RET PLC γ Phosphotyrosine Binding Domain Regulates Ca²⁺ Signaling and Neocortical Neuronal Migration"
PLoS ONE 7(2):e31258 (2012)
31. Eklöf-Ljunggren E, Haupt S, Ausborn J, Dehnisch I, **Uhlén P**, Higashijima SI, El Manira A "Origin of excitation underlying locomotion in the spinal circuit of zebrafish"
Proc Natl Acad Sci USA Apr 3;109(14):5511-6 (2012)
32. Kitambi SS, Nilsson ES, Sekyrova P, Ibarra C, Tekeoh GN, Andäng M, Ernfors P, **Uhlén P** "Small Molecule Screening Platform for Assessment of Cardiovascular Toxicity on Adult Zebrafish Heart"
BMC Physiol. Mar 26;12(1):3 (2012)
33. Hiyoshi H, Abdelhady S, Segerström L, Sveinbjörnsson B, Nuriya M, Lundberg TK, Desfrere L, Miyakawa A, Yasui M, Kogner P, Johnsen JI, Andäng M, **Uhlén P** "Quiescence and γ H2AX in Neuroblastoma are Regulated by Ouabain/Na,K-ATPase"
Br J Cancer May 22;106(11):1807-15 (2012)
34. Gaengel K, Niaudet C, Hagikura K, Siemsen BL, Muhl L, Hofmann JJ, Ebarasi L, Nyström S, Rymo S, Chen LL, Pang MF, Jin Y, Raschperger E, Roswall P, Schulte D, Benedito R, Larsson J, Hellström M, Fuxe J, **Uhlén P**, Adams R, Jakobsson L, Majumdar A, Vestweber D, Uv A, Betsholtz C. "The Sphingosine-1-Phosphate Receptor S1PR1 Restricts Sprouting Angiogenesis by Regulating the Interplay between VE-Cadherin and VEGFR2"
Developmental Cell Sep 11;23(3):587-99 (2012)




35. Ibarra C, Vicencio JM, Estrada M, Lin Y, Rocco P, Rebellato P, Muñoz JP, Garcia-Prieto J, Quest AF, Chiong M, Davidson SM, Bulatovic I, Grinnemo KH, Larsson O, Szabadkai G, **Uhlén P**†, Jaimovich E‡, Lavandero S‡ “Local control of nuclear calcium signaling in cardiac myocytes by perinuclear microdomains of sarcolemmal insulin-like growth factor 1 receptors”
Circulation Research Jan 18;112(2):236-45 (2013)
36. Miyakawa A, Ibarra C, Malmersjö S, Aperia A, Wiklund P, **Uhlén P**† “Intracellular Calcium Release Modulates Polycystin-2 Trafficking”
BMC Nephrology Feb 11;14(1):34 (2013)
37. Wan Ibrahim WN, Tofighi R, Onishchenko N, Rebellato P, Bose R, **Uhlén P**, Ceccatelli S “Perfluorooctane sulfonate induces neuronal and oligodendrocytic differentiation in neural stem cells and alters the expression of PPAR γ in vitro and in vivo”
Toxicol Appl Pharmacol. May 15;269(1):51-60 (2013)
38. Malmersjö S†, Rebellato P†, Smedler E†, Planert H, Kanatani S, Liste I, Nanou E, Sunner H, Abdelhady S, Zhang S, Andäng M, El Manira A, Silberberg G, Arenas E, **Uhlén P**† “Neural Progenitors Organize in Small-World Networks to Promote Cell Proliferation”
Proc Natl Acad Sci USA Apr 16;110(16):E1524-E1532 (2013)
39. Malmersjö S, Rebellato P, Smedler E, **Uhlén P**† “Small-world networks of spontaneous Ca(2+) activity”
Commun Integr Biol. Jul 1;6(4):e24788 (2013)
40. Yang S, Edman L, Sánchez-Alcañiz JA, Fritz N, Bonilla S, Hecht J, **Uhlén P**, Pleasure SJ, Villaescusa C, Marín O, Arenas E “Cxcl12/Cxcr4 signaling controls the migration and process orientation of A9-A10 dopaminergic neurons”
Development Nov;140(22):4554-64 (2013)
41. Bräutigam L, Dahl Ejby Jensen L, Poschmann G, Nyström S, Bannenberg S, Dreij K, Montano S, Aktas O, **Uhlén P**, Stühler K, Cao Y, Holmgren A, Berndt C “Glutaredoxin regulates vascular development by reversible glutathionylation of sirtuin 1”
Proc Natl Acad Sci USA Dec 10;110(50):20057-62 (2013)
42. Smedler E, **Uhlén P**† “Frequency Decoding of Calcium Oscillations”
Biochim Biophys Acta. Mar;1840(3):964-9 (2014)
43. Zinin N, Adameyko I, Wilhelm M, Fritz N, **Uhlén P**, Ernfors P, Arsenian Henriksson M “MYC Proteins Promote Neuronal Differentiation by Controlling the Mode of Progenitor Cell Division”
EMBO Reports Apr 1;15(4):383-91 (2014)
44. Codeluppi S, Fernandez Zafra T, Sandor K, Kjell J, Liu Q, Abrams M, Olson L, Gray NS, Svensson CI, **Uhlén P** “Interleukin-6 secretion by astrocytes is dynamically regulated by PI3K-mTOR-calcium signaling”
PLoS ONE Mar 25;9(3):e92649 (2014)
45. Wan M, Söhnlein O, Tang X, van der Does AM, Smedler E, **Uhlén P**, Lindbom L, Agerberth B, Haeggström JZ “Cathelicidin LL-37 induces time-resolved release of LTB4 and TXA2 by human macrophages and triggers eicosanoid generation in vivo”
FASEB J April 15 (2014)

46. Hultin S, Zheng Y, Mojallal M, Vertuani S, Gentili C, Balland M, Milloud R, Belting HG, Affolter M, Helker CS, Adams RH, Herzog W, **Uhlén P**, Majumdar A, Holmgren L “AmotL2 links VE-cadherin to contractile actin fibers necessary for aortic lumen expansion”
Nature Communication May 7;5:3743 (2014)
47. Ibarra C, Vicencio JM, Varas-Godoy M, Jaimovich E, Rothermel BA, **Uhlén P**, Hill JA, Lavandero S “An integrated mechanism of cardiomyocyte nuclear Ca²⁺ signaling”
J Mol Cell Cardiol. Jul 2;75C:40-48 (2014)
48. Mojallal M, Zheng Y, Hultin S, Audebert S, van Harn T, Johnson P, Lenander C, Fritz N, Mieth C, Corcoran M, Hallström M, Hartman J, Mazure N, Weide T, Grandér D, Borg J-P, **Uhlén P**, Holmgren L “AmotL2 disrupts apical-basal cell polarity and promotes tumor invasion”
Nature Communication Aug 1;5:4557 (2014)
49. Jungebluth P, Haag JC, Sjöqvist S, Gustafsson Y, Rodríguez AB, Del Gaudio C, Bianco A, Dehnisch I, **Uhlén P**, Baiguera S, Lemon G, Ling Lim M, Machiarini P “Tracheal tissue engineering in rats”
Nature Protocols Sep;9(9):2164-2179 (2014)
50. Smedler E, Malmersjö S, **Uhlén P** “Network Analysis of Time-Lapse Microscopy Recordings”
Front Neural Circuits. Sep 17;8:111 (2014)
51. **Uhlén P**, Fritz N, Smedler E, Malmersjö S, Kanatani S “Calcium Signaling in Neocortical Development”
Dev Neurobiol Apr;75(4):360-8 (2015)
52. Bulatovic I, Ibarra C, Österholm C, Wang H, Beltrán-Rodríguez A, Varas-Godoy M, Månsson-Broberg A, **Uhlén P**, Simon A, Grinnemo K-H “Sublethal Caspase Activation Promotes Generation of Cardiomyocytes from Embryonic Stem Cells”
PLoS ONE Mar 12;10(3):e0120176 (2015)
53. Kanatani S, Honda T, Aramaki M, Hayashi K, Kubo KI, Ishida M, Tanaka DH, Kawauchi T, Sekine K, Kusuzawa S, Kawasaki T, Hirata T, Tabata H, **Uhlén P**, Nakajima K “The COUP-TFII/Neuropilin-2 is a molecular switch steering diencephalon-derived GABAergic neurons in the developing mouse brain”
Proc Natl Acad Sci USA Aug 24. pii: 201420701 (2015)
54. Kanatani S, **Uhlén P**, Barragan A “Infection by *Toxoplasma gondii* Induces Amoeboid-Like Migration of Dendritic Cells in a Three-Dimensional Collagen Matrix”
PLoS ONE Sep 25;10(9):e0139104 (2015)
55. Li S, Fell SM, Surova O, Smedler E, Wallis K, Chen ZX, Hellman U, Johnson JI, Martinson T, Kenchappa RS, **Uhlén P**, Kogner P, Schlisio S “The 1p36 tumor suppressor KIF 1B β is required for Calcineurin activation controlling mitochondrial fission and apoptosis”
Developmental Cell Jan 25;36(2):164-78 (2016)
56. Månsson-Broberg A, Rodin S, Bulatovic I, Ibarra C, Löfling M, Genead R, Wärdell E, Felldin U, Granath C, Alici E, Le Blanc K, Smith CI, Salašová A, Westgren M, Sundström E, **Uhlén P**, Arenas E, Sylvén C, Tryggvason K, Corbascio M, Simonson OE, Österholm C, Grinnemo KH “Wnt/ β -Catenin Stimulation and Laminins Support Cardiovascular Cell Progenitor Expansion from Human Fetal Cardiac Mesenchymal Stromal Cells”
Stem Cell Reports Apr 12;6(4):607-17 (2016)

57. Forsberg D, Horn Z, Tserga E, Smedler E, Silberberg G, Kaila K, **Uhlén P**, Herlenius E “CO₂-evoked release of PGE₂ modulates sighs and inspiration as demonstrated in brainstem organotypic culture” *Elife* Jul 5;5. pii: e14170 (2016)
58. Tanaka N, Kosaka T, Miyazaki Y, Mikami S, Niwa N, Otsuka Y, Minamishima YA, Mizuno R, Kikuchi E, Miyajima A, Sabe H, Okada Y, **Uhlén P**, Suematsu M, Oya M “Acquired platinum resistance involves epithelial-to-mesenchymal transition through ubiquitin ligase FBXO32 dysregulation” *Journal of Clinical Investigation - Insight* Nov 3;1(18):e83654 (2016)
59. Niklasson M, Maddalo G, Sramkova Z, Mutlu E, Wee S, Sekyrova P, Schmidt L, Fritz N, Dehnisch I, Kyriatzis G, Krafcikova M, Carson BB, Feenstra J, Marinescu VD, Segerman A, Haraldsson M, Gustavsson A-L, Hammarström LG, Jenmalm-Jensen A, Uhrbom L, Altelaar AFM, Linnarsson S, **Uhlén P**, Trantirek L, Vincent CT, Nelander S, Enger P, Andäng M “Membrane depolarizing channel blockers induce selective glioma cell death via impaired nutrient transport and unfolded protein/amino acid responses” *Cancer Research* Apr 1;77(7):1741-1752 (2017)
60. Vincent PH, Benedikz E, **Uhlén P**, Hovatta O, Sundström E “Expression of Pluripotency Markers in Non-pluripotent Human Neural Stem and Progenitor Cells” *Stem Cells Dev.* Jun 15;26(12):876-887 (2017)
61. Hörtenhuber M, Toledo E, Smedler E, Arenas E, Malmersjö S, **Uhlén P** ‡ “Mapping Genes for Calcium Signaling and their Associated Genetic Disorders” *Bioinformatics* Aug 15;33(16):2547-2554 (2017)
62. Fernandez-Zafra T, Codeluppi S, **Uhlén P** ‡ “An ex vivo spinal cord injury model to study ependymal cells in adult mouse tissue” *Exp Cell Res.* Aug 15;357(2):236-242 (2017)
63. Tanaka N, Kanatani S, Tomer R, Sahlgren C, Kronqvist P, Kaczynska D, Louhivuori L, Kis L, Lindh C, Mitura P, Stepulak A, Corvigno S, Hartman J, Micke P, Mezheyeuski A, Strell C, Carlsson JW, Moro CF, Dahlstrand H, Östman A, Matsumoto K, Wiklund P, Oya M, Miyakawa A, Deisseroth K, **Uhlén P** ‡ “Whole-tissue biopsy phenotyping of three-dimensional tumours reveals patterns of cancer heterogeneity” *Nature Biomedical Engineering* Oct;1(10):796-806 (2017)
64. Kanatani S, Fuks JM, Olafsson E, Westermark L, Varas-Godoy M, **Uhlén P**, Barragan A “Voltage-dependent calcium channel signaling mediates GABA(A) receptor-induced migratory activation of dendritic cells infected by *Toxoplasma gondii*” *PLOS Pathogens* Dec 7;13(12):e1006739 (2017)
65. Louhivuori LM, Turunen PM, Louhivuori V, Yellapragada V, Nordström T, **Uhlén P**, Åkerman KE “Regulation of radial glial process growth by glutamate via mGluR5/TRPC3 and neuregulin/ErbB4” *Glia* Jan;66(1):94-107 (2018)
66. Tanaka N, Kaczynska D, Kanatani S, Sahlgren C, Mitura P, Stepulak A, Miyakawa A, Wiklund P, **Uhlén P** ‡ “Mapping of the Three-Dimensional Lymphatic Microvasculature in Bladder Tumors Using Light-Sheet Microscopy” *Br J Cancer* Apr;118(7):995-999 (2018)

67. Liu T, Zhao J, Ibarra C, Garcia MU, **Uhlén P**, Nistér M “Glycosylation controls sodium-calcium exchanger 3 sub-cellular localization during cell cycle”
Eur J Cell Biol Apr;97(3):190-203 (2018)
68. **Uhlén P**‡, Tanaka N “Improved Pathological Examination of Tumors with 3D Light-Sheet Microscopy”
Trends Cancer May;4(5):337-341 (2018)
69. Yang S, Toledo EM, Rosmaninho P, Peng C, **Uhlén P**, Castro DS, Arenas E “A Zeb2-miR200c loop controls midbrain dopaminergic neuron migration and differentiation”
Communications Biology (Nature Research) Jun 25;1:75 (2018)
70. Louhivuori L, Kanatani S, **Uhlén P**‡ “Predicting a tumour’s drug uptake”
Nature Biomedical Engineering Oct;2(10):717-718 (2018)
71. Ibarra C, Karlsson M, Codeluppi S, Varas-Godoy M, Zhang S, Mangsbo S, Hosseini A, Soltani N, Kaba R, Lundgren TK, Hosseini A, Tanaka N, Oya M, Wiklund P, Miyakawa A, **Uhlén P**‡ “BCG-induced cytokine release in bladder cancer cells is regulated by Ca²⁺ signaling”
Molecular Oncology Feb;13(2):202-211 (2018)
72. Tanaka N, Katayama S, Reddy A, Nishimura K, Niwa N, Hongo H, Ogihara K, Kosaka T, Mizuno R, Kikuchi E, Mikami S, Miyakawa A, Arenas E, Kere J, Oya M, **Uhlén P**‡ “Single-Cell RNA-seq Analysis Reveals the Platinum Resistance Gene COX7B and the Surrogate Marker CD63”
Cancer Medicine Dec;7(12):6193-6204 (2018)
73. Dehnisch Ellström I, Spulber S, Hultin S, Norlin N, Ceccatelli S, Hultling C, and **Uhlén P**‡ “Spinal Cord Injury in Zebrafish Induced by Near-Infrared Femtosecond Laser Pulses”
Journal of Neuroscience Methods Jan 1;311:259-266 (2019)
74. Bernard-Marissal N, van Hameren G, Juneja M, Pellegrino C, Louhivuori L, Bartesaghi L, Rochat C, El Mansour O, Médard JJ, Croisier M, Maclachlan C, Poirot O, **Uhlén P**, Timmerman V, Tricaud N, Schneider BL, Chrast R “Altered interplay between endoplasmic reticulum and mitochondria in Charcot-Marie-Tooth type 2A neuropathy”
Proc Natl Acad Sci USA Feb 5;116(6):2328-2337 (2019)
75. Rebellato P, Kaczynska D, Kanatani S, Al Rayyes I, Zhang S, Villaescusa C, Falk A, Arenas E, Hermanson O, Louhivuori L, **Uhlén P**‡ “The T-type Ca²⁺ Channel Cav3.2 Regulates Differentiation of Neural Progenitor Cells During Cortical Development via Caspase-3”
Neuroscience Mar 15;402:78-89 (2019)
76. Grahn A, Tanaka N, **Uhlén P**, Brehmer M “Volumetric imaging: a potential tool to stage upper tract urothelial carcinoma”
World Journal of Urology Nov;37(11):2297-2302 (2019)
77. Lam M, Moslem M, Bryois J, Pronk RJ, Uhlén E, Ellström ID, Laan L, Olive J, Morse R, Rönholm H, Louhivuori L, Korol SV, Dahl N, **Uhlén P**, Anderlid BM, Kele M, Sullivan PF, Falk A “Single cell analysis of autism patient with bi-allelic NRXN1-alpha deletion reveals skewed fate choice in neural progenitors and impaired neuronal functionality”
Exp Cell Res. Oct 1;383(1):111469 (2019)

78. Louhivuori LM, Turunen PM, Louhivuori V, Yellapragada V, Nordstrom T, **Uhlén P**‡, Akerman KE‡ “Neurotransmitters and Endothelins Acting on Radial Glial G-protein Coupled Receptors Are, via Proteolytic NRG/ErbB4 Activation, Able to Modify the Migratory Behavior of Neocortical Cells and Mediate Bipolar-to-Multipolar Transition”
Stem Cells and Development Sep 1;29(17):1160-1177 (2020)
79. Aperia A, Brismar H, **Uhlén P** “Mending Fences: Na,K-ATPase signaling via Ca²⁺ in the maintenance of epithelium integrity ”
Cell Calcium Apr 26;88:102210 (2020)
80. Phoon YP, Chivukula IV, Tsoi YL, Kanatani S, **Uhlén P**, Kuiper R, Lendahl U “Notch activation in the mouse mammary luminal lineage leads to ductal hyperplasia and altered partitioning of luminal cell subtypes”
Exp Cell Res. Oct 1;395(1):112156 (2020)
81. Lin C, Calzarossa C, Fernandez-Zafra T, Liu J, Li, X, Ekblad Å, Vazquez-Juarez E, Codeluppi S, Holmberg L, Lindskog M, **Uhlén P**, Åkesson E “Human ex vivo spinal cord slice culture as a useful model of neural development, lesion and allogeneic neural cell therapy”
Stem Cell Research & Therapy Jul 29;11(1):320 (2020)
82. Osman AM, Kee N, Oliva-Vilarnau N, Alevyzaki A, Zhou K, Louhivuori L, **Uhlén P**, Hedlund E, Lauschke VM, Kele J, Blomgren K “Radiation triggers a rapid, transient, and temporally highly coordinated microglia activation in the juvenile mouse hippocampus”
Cell Reports Jun 2;31(9):107699 (2020)
83. Tanaka N, Kanatani S, Kaczynska D, Fukumoto K, Louhivuori L, Mizutani T, Kopper O, Kronqvist P, Robertson S, Lindh C, Kis L, Pronk R, Niwa N, Matsumoto K, Oya M, Miyakawa A, Falk A, Hartman J, Sahlgren C, Clevers H, **Uhlén P**‡ “Three-dimensional single-cell imaging for the analysis of RNA and protein expression in intact tumour biopsies”
Nature Biomedical Engineering Sep;4(9):875-888 (2020)
84. Lewicka M, Rebellato P, Lewicki J, **Uhlén P**, Rising A, Hermanson O “Recombinant spider silk protein matrices facilitate differentiation of neural stem cells into mature and functional neurons”
Frontiers in Materials 09 February doi.org/10.3389/fmats.2020.560372 (2021)
85. Smedler E, Louhivuori L, Romanov RA, Masini D, Dehnisch Ellström I, Wang C, Caramia M, West Z, Zhang S, Rebellato R, Malmersjö S, Brusini I, Kanatani S, Fisone G, Harkany T, **Uhlén P**‡ “Disrupted Cacna1c Gene Expression Perturbs Spontaneous Ca²⁺ Activity Causing Abnormal Brain Development and Increased Anxiety”
Proc Natl Acad Sci USA Feb 15;119(7):e2108768119 (2022)
86. Zhang S, Miyakawa A, Wickström M, Elfman L, Louhivuori L, Varas-Godoy M, Kemppainen K, Kanatani S, Kaczynska D, Dehnisch Ellström I, Dyberg C, Kronqvist P, Repo H, Mikoshiba K, Sahlgren C, Johnsen JI, and **Uhlén P**‡ “GIT1 Protects against Breast Cancer Growth through Negative Regulation of Notch”
Nature Communications Mar 22;13(1):1537 (2022)
87. Lee MD, Buckley C, Zhang X, Louhivuori L, **Uhlén P**, Wilson C, McCarron JG “Small-world connectivity dictates collective endothelial cell signaling”
Proc Natl Acad Sci USA May 3;119(18):e2118927119 (2022)

88. Kanatani S, **Uhlén P** “Imaging cleared tissues made easy”
Nature Methods May;19(5):527-529 (2022)
89. Reis L, Raciti M, Rodriguez PG, Joseph B, Al Rayyes I, **Uhlén P**, Falk A, da Cunha Lima, Ceccatelli S
“Glyphosate-based herbicide induces long-lasting impairment in neuronal and glial differentiation”
Environ Toxicol Aug;37(8):2044-2057 (2022)
90. Krimpenfort L, Garcia Collado M, Leeuwen T, Locri F, Luik A-L, Queiro Palou A, Kanatani S, André H, **Uhlén P**, Jakobsson L “Anatomy of the complete mouse eye vasculature in development and pathology explored by fluorescent light-sheet microscopy”
BioRxiv doi.org/10.1101/2022.12.20.521194 (2022)
91. Kanatani, Kreutzmann JC, Li Y, West Z, Vougesi Nikou D, Skytte JL, Lydolph Larsen L, Tanaka DH, Kaczynska D, Fukumoto K, Tanabe T, Miyakawa A, Roostalu U, Hecksher-Sørensen J, **Uhlén P**
“Whole-Brain Three-Dimensional Imaging of RNAs at Single-Cell Resolution”
BioRxiv doi.org/10.1101/2022.12.28.521740 (2022)
92. Borm LE, Mossi Albiach A, Mannens CCA, Janusauskas J, Özgün C, Fernández-García D, Hodge R, Castillo F, Hedin CRH, Villablanca EJ, **Uhlén P**, Lein ES, Codeluppi S, Linnarsson S “Scalable in situ single-cell profiling by electrophoretic capture of mRNA using EEL FISH”
Nature Biotechnology Feb;41(2):222-231 (2023)
93. Stratoulas V, Ruiz R, Kanatani S, Osman AM, Armengol JA, Rodríguez-Moreno A, Murgoci A-N, García-Domínguez I, Keane L, Alonso-Bellido I, Gonzalez-Ibáñez F, Picard K, Vázquez-Cabrera G, Posada-Pérez M, Vernoux N, Tejera D, Grabert K, Cheray M, González-Rodríguez P, Pérez-Villegas EM, Martínez-Gallego I, Remero AL, Brodin D, Avila-Cariño J, Airavaara M, **Uhlén P**, Heneka MT, Tremblay M-E, Blomgren K, Venero JL, Joseph B “Arg1+microglia are critical for shaping cognition in female mice”
Nature Neuroscience Jun;26(6):1008-1020 (2023)
94. Fukumoto K, Kanatani S, Jaremko G, West Z, Al Rayyes I, Axelsson T, Miyakawa A, Brehmer M, **Uhlén P** “Three-Dimensional Imaging of Fine Needle Biopsies to Improve Diagnostic Yield and Accuracy of Upper Tract Urothelial Carcinoma”
Manuscript (2023)
95. Eidhof I, Kele M, Shasavani M, Ulfenborg B, **Uhlén P**, Falk A “Defined human PSC culture conditions robustly maintain PSC pluripotency through calcium signalling”
Manuscript (2023)
96. Al-Rayyes I, Louhivuori L, Dehnisch Ellström I, Varas-Godoy M, Smedler E, **Uhlén P**
“”
Manuscript (2023)
97. Dehnisch Ellström I, Van Leeuwen T, Louhivuori L, Norlin N, Hultling C, **Uhlén P** “”
Manuscript (2023)
98. West Z, Kanatani, S, Sima A, Amini, **Uhlén P** “”
Manuscript (2023)

99. West Z, Kanatani, S, Sima A, Amini, Uhlén P† “

”

Manuscript (2023)