

Curriculum vitae

**CHRISTOPH SCHORL, Ph.D.**

Assistant Professor (Research), Director Genomics Core Facility, Department of Molecular Biology, Cell  
Biology and Biochemistry

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**EDUCATION**

**UNDERGRADUATE**

Ruhr-Universität Bochum, Ger,  
Biology, 1996, Diplom (with distinction)

**GRADUATE**

University of Dundee, UK, 1995-1996  
Biochemistry, 1997, M.Sc.

University of Dundee, UK, 1996-2000  
Cellular/Molecular Biology, 2001, Ph.D.  
Thesis: "Expression studies of Gadd45-like proteins and  
identification of novel RNA binding properties"

**POSTGRADUATE TRAINING**

Postdoctoral Research Associate      Brown University,  
Dept. of Molecular Biology, Cell Biology, Biochemistry  
70 Ship Street, Providence, RI, USA,  
11/2000 – 1/2007  
Cell & Molecular Biology, Biochemistry,  
"Analysis of the c-Myc proto-oncogene"

**ACADEMIC APPOINTMENTS**

Assistant Professor (Research)      Brown University,  
Dept. of Molecular Biology, Cell Biology, Biochemistry  
70 Ship Street, Providence, RI, USA,  
2/2007 - present

## PUBLICATIONS

### BOOK CHAPTER

- **Schorl, C.** and Sedivy, J.M., (2007) Current methods to analyze the cell cycle. *Methods* 41: 143-150

### ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

- Spade, D.J., Dere, E., Hall, S.J., **Schorl, C.**, Freiman, R.N., Boekelheide, K., All-Trans Retinoic Acid Disrupts Development in Ex Vivo Cultured Fetal Rat Testes. I: Altered Seminiferous Cord Maturation and Testicular Cell Fate. *Toxicol Sci.*, 2019, 167, 546-558. doi: 10.1093/toxsci/kfy260.
- Wang, Y., Lu, S., Xiong, J., Singh, K., Hui, Y., Zhao, C., Brodsky, A.S., Yang, D., Jolly, G., Ouseph, M., **Schorl, C.**, DeLellis, R.A., Resnick, M.B., ColX $\alpha$ 1 is a stromal component that colocalizes with elastin in the breast tumor extracellular matrix. *J Pathol Clin Res.* 2019, 5, 40-52, doi: 10.1002/cjp2.115, PMID: 30207088
- Chorzalska, A., Morgan, J., Ahsan, N., Treaba, D.O., Olszewski, A.J., Petersen, M., Kingston, N., Cheng, Y., Lombardo, K., **Schorl, C.**, Yu, X., Zini, R., Pacilli, A., Tepper A, Coburn J, Hryniewicz-Jankowska, A., Zhao, T.C., Oancea, E., Reagan, J.L., Liang, O., Kotula, L., Quesenberry, P.J., Gruppuso, P.A., Manfredini, R., Vannucchi, A.M., Dubielecka, P.M., Bone marrow-specific loss of *ABI1* induces myeloproliferative neoplasm with features resembling human myelofibrosis. *Blood*, 2018, 132, 2053-2066. doi: 10.1182/blood-2018-05-848408, PMID:30213875
- Lange, P. T., **Schorl, C.**, Sahoo, D., & Tarakanova, V. L. (2018). Liver X receptors suppress activity of cholesterol and fatty acid synthesis pathways to oppose gammaherpesvirus replication. *MBio*, 9(4). doi:10.1128/mBio.01115-18
- Zuo C, Wang L, Kamalesh RM, Bowen ME, Moore DC, Dooner MS, Reginato AM, Wu Q, Schorl C, Song Y, Warman ML, Neel BG, Ehrlich MG, Yang W., (2018), SHP2 regulates skeletal cell fate by modifying SOX9 expression and transcriptional activity. *Bone Res.*, 2018, 6:12, doi: 10.1038/s41413-018-0013-z
- Wilson S., Dere E., Klein D., Schorl C., Hall S., Boekelheide K., (2018), Localization of dimethylated histone three lysine four in the *Rattus norvegicus* sperm genome. *Biol Reprod.*, doi: 10.1093/biolre/iroy051
- Ribeiro JR, Gaudet HM, Khan M, Schorl C, James NE, Oliver MT, DiSilvestro PA, Moore RG, Yano N., (2018), Human Epididymis Protein 4 Promotes Events Associated with Metastatic Ovarian Cancer via Regulation of the Extracellular Matrix., *Front Oncol.* 2018 Jan 22;7:332. doi: 10.3389/fonc.2017.00332
- Jolis, T.W., Brucker, B.M., Schorl, C., Butera, J.N., Quesenberry, P.J., Low microchimeric cell density in tumors suggests alternative antineoplastic mechanism. (2017), *Med Oncol.*, 34 (4)
- DOI: [10.1007/s12032-017-0921-6](https://doi.org/10.1007/s12032-017-0921-6)
- Yilmaz, A., Kattamuri, C., Ozdeslik, R.N., Schmiedel, C., Mentzer, S., Schorl, C., Oancea, E., Thompson, T.B., Fallon, J.R., (2016), MuSK is a BMP co-receptor that shapes BMP responses and calcium signaling in muscle cells., *Sci Signal.*, 9(444):ra87., PMCID: PMC5242376, DOI: 10.1126/scisignal.aaf0890
- Ribeiro, J.R., **Schorl, C.**, Yano, N., Romano, N., Kyukwang, K., Singh, R.K., Moore, R.G., (2016), HE4 promotes collateral resistance to cisplatin and paclitaxel in ovarian cancer cells, *J Ovarian Res.* 9:28, doi: 10.1186/s13048-016-0240-0 PMCID: PMC4869286
- Grive, KJ, Seymour, K.A., Gustafson, E., Baddoo, M., **Schorl, C.**, Golnoski, K., Rajkovic, A., Brodsky, A.S., Freiman, R.N., TAF4b Regulates Oocyte-Specific Genes Essential for Meiosis. [PLoS Genet.](https://doi.org/10.1371/journal.pgen.1006128) 2016, 12(6):e1006128. doi: 10.1371/journal.pgen.1006128. PMID:[27341508](https://pubmed.ncbi.nlm.nih.gov/27341508/)

- Uzun, A., Schuster, J., McGonnigal, B., **Schorl, C.**, Dewan, A., Padbury, J. (2016), Targeted Sequencing and Meta-Analysis of Preterm Birth, PLoS One, <http://dx.doi.org/10.1371/journal.pone.0155021>
- Brodsky, A. S., Xiong, J., Yang, D., **Schorl, C.**, Fenton, M. A., Graves, T. A., Sikov, W. M., Resnick, M. B., & Wang, Y., (2016), Identification of stromal ColXalpha1 and tumor-infiltrating lymphocytes as putative predictive markers of neoadjuvant therapy in estrogen receptor-positive/HER2-positive breast cancer. *BMC Cancer*, 16(1), 274. doi: 10.1186/s12885-016-2302-5
- De Paepe, M.; Chu, S., Hall, S., McDonnell-Clark, E., Heger, N., **Schorl, C.**, Mao, Q., Boekelheide, K., Intussusceptive-Like angiogenesis in human fetal lung xenografts: link with bronchopulmonary dysplasia- associated microvascular dysangiogenesis? *Experimental Lung Research*, 2015, 41(9):477-88, doi: 10.3109/01902148.2015.1080321
- Chorzalska, A., Salloum, I., Shafqat, H., Khan, S., Marjon, P., Treaba, D., **Schorl, C.**, Morgan, J., Bryke, C.R., Falanga, V., Zhao, T.C., Reagan, J., Winer, E., Olszewski, A.J., Al-Homsi, A.S., Kouttab, N., Dubielecka, P.M. (2014), Low expression of Abelson interactor-1 is linked to acquired drug resistance in Bcr-Abl-induced leukemia. *Leukemia*. doi: 10.1038/leu.2014.120. PMID: 24699303
- Lu, S., Mukkada, V.A.; Mangray, S., Cleveland, K., Shillingford, N., **Schorl, C.**; Alexander S. Brodsky, Murray B. Resnick, M.B. (2012), MicroRNA Profiling in Mucosal Biopsies of Eosinophilic Esophagitis Patients Pre and Post Treatment with Steroids and Relationship with mRNA Targets, *PLoS One* 7(7): e40676, DOI: 10.1371
- Sanders, J.A., **Schorl, C.**, Patel, A., Sedivy, J.M., Gruppuso, PA (2012), Postnatal liver growth and regeneration are independent of c-myc in a mouse model of conditional hepatic c-myc deletion. *BMC Physiology*, 12(1) ), PMID:2239768
- Wood, J.G., Hillenmeyer, S., Lawrence, C. Chang, C., Hosier, S., Lightfoot, W., Mukherjee, E., Jiang, N., **Schorl, C.**, Brodsky, A.S., Neretti, N., Helfand, S.L., (2010) Chromatin remodeling in the aging genome of Drosophila. *Aging Cell*, 9(6) 971-978, PMID: 20961390
- Bauer, J., Antosh, M., Chang, C., **Schorl, C.**, Kolli, S., Neretti, N., Helfand, S.L. (2010), Comparative transcriptional profiling identifies takeout as a gene that regulates life span. *Aging*, 2(5): 298-310, PMID: 20519778
- Lovasco, L.A., Seymour, K.A., Zafra, K., O'Brien, C.W., **Schorl, C.**, Freiman, R.N., (2010), Accelerated Ovarian Aging in the Absence of the Transcription Regulator TAF4B in Mice. *Biol Reprod*, 82 (1) 23-34, PMID: 19684329
- Smith KP, Byron M, O'Connell BC, Tam R, **Schorl, C.**, Guney, I., Hall, L.L., Agrawal, P., Sedivy, J.M., Lawrence, J.B., (2004), c-Myc localization within the nucleus: Evidence for association with the PML nuclear body. *J Cell Biochem*, 93(6):1282-96, PMID: 15503302
- **Schorl, C.** and Sedivy, J.M., (2003), Loss of proto-oncogene c-Myc function impedes G1 phase progression both before and after the Restriction point. *Mol Biol Cell*, 14:823-835; PMID: 12631706

#### OTHER PEER-REVIEWED PUBLICATAIONS

- Bray, S.E., **Schorl, C.**, Hall, P.A., (1998), The challenge of p53: Linking biochemistry, biology, and patient management. *Stem Cells*, 16:248-56

#### ABSTRACTS

- Campomenosi, P., **Schorl, C.**, Warbrick, E., and Hall, P.A., Characterization of the interaction of MyD118 with PCNA and p21<sup>Waf1/CIP1</sup>. UKMBCN Meeting, Warwick, UK, 12/1996
- **Schorl, C.** and Hall, P.A., Investigation into the biological function of the Gadd45 and MyD118 proteins, Keystone Symposia, "The molecular basis of cancer", Taos, NM, USA, 3/1999

- **Schorl, C.**, O'Connell, B., Livne, K., Sedivy, J.M., Kinetic analysis of cell cycle progression in c-Myc-null fibroblasts - A major role in G1 and passage through the restriction point. Cold Spring Harbor meeting: The Cell Cycle, Cold Spring Harbor, USA, 5/2002
- **Schorl, C.**, Guney, I., Agrawal, P., Sedivy, J.M., Kinetic analysis of cell cycle progression in c-myc-null fibroblasts, 18. Meeting on Oncogenes, La Jolla, USA, 6/2002
- **Schorl, C.**, Agrawal, P., Sedivy, J.M., Analysis of conditional loss of c-Myc in mouse tail fibroblasts. 8th Cancer Research UK Beatson International Cancer Conference, Human Cancer: Modeling the Disease, Glasgow, UK, 6/2005
- **Schorl, C.**, Exciting Research Opportunities at the Brown Genomics Core Facility, Rhode Island Research Alliance Meeting, Providence, RI, USA, 6/2008
- **Schorl, C.**, Exciting Research Opportunities at the Brown Genomics Core Facility, IDeA/COBRE Meeting, Washington DC, 8/2008
- Ben Moyer, Allison DeLong, Zhijin Wu, **Christoph Schorl**, and Mary Hixon. Akt1 Mediates Epigenetic Regulation via Histone Modifications in the Postnatal Testis. Society of Toxicology, Baltimore, MD, 3/2009.
- Mary Hixon, Jeena Santos-Ahmed, Allison DeLong, **Christoph Schorl**, and Zhijin Wu. Akt1-Dependent Gene Changes are Associated with Blood-Testis-Barrier (BTB) Formation Following Exposure to a Postnatal Goitrogen. Society of Toxicology, Baltimore, MD. 3/2009.
- **Schorl, C.**, Genomics research at the Genomics Core Facility. Northeast Regional COBRE/INBRE meeting, Mountain View Grand, Whitefield, NH, USA 7/2009
- Mary Hixon, Jeena Santos-Ahmed, Allison DeLong, **Christoph Schorl** and Zhijin Wu,
- Testicular Gene Expression Profiling Following Lactational Exposure to 6-N-Propylthiouracil (PTU), a Neonatal Goitrogen, Society of Toxicology, Salt Lake City, UT, 3/2010
- Marissa Kielbasinski, Hilary E. Hartlaub, Walter J. Atwood, **Christoph Schorl**, Integral Scientific Support Services at the Brown Genomics Core Facility, COBRE Center for Cancer Research Development and COBRE Center for Stem Cell Biology Symposium, Providence, RI, 03/2011
- Lindsay A. Lovasco, Kimberly A. Seymour, **Christoph Schorl**, Richard N. Freiman, Transcriptional regulation of spermatogonial progenitor development and meiotic entry, Society for the Study of Reproduction 44<sup>th</sup> Annual Meeting, Portland, OR, 08/2011
- Marissa Kielbasinski, Hilary E. Hartlaub, Walter J. Atwood, **Christoph Schorl**, Integral Scientific Support Services at the Brown Genomics Core Facility, 4<sup>th</sup> Northeast Regional IDeA Meeting, Newport, RI, 08/2011
- **Christoph Schorl**, Hilary Hartlaub, Marissa Kielbasinsky, Walter J Atwood, The Brown Genomics Core Facility, 19<sup>th</sup> Lifespan Annual Research Celebration, Providence, RI, 10-2011
- Marissa Kielbasinski, Hilary E. Hartlaub, Walter J. Atwood, **Christoph Schorl**, The Brown Genomics Core Facility, 6<sup>th</sup> BioNES meeting Roger Williams University, Bristol, RI, 12/2011
- Hilary Hartlaub, Walter J Atwood, **Christoph Schorl**, Expansion of Scientific Services at the Genomics Core Facility at Brown University, 4<sup>th</sup> Biennial National IDeA Symposium, Washington DC, 06/2012
- Robinette, Kirsten E, Atwood, Walter J., Sedivy John M., **Schorl, Christoph**, The Genomics Core Facility at Brown University. National IDeA Symposium of Biomedical Research Excellence, Washington DC, USA 06/2014
- **Christoph Schorl**, The Brown University Genomics Core Facility - Supporting Research In The Ocean State, Lifespan Annual Research Celebration, 2017 RI NIH IDeA Symposium, Providence, RI 6-2017
- **Christoph Schorl**, The Brown University Genomics Core Facility - Supporting Research In The Ocean State, Lifespan Annual Research Celebration, Providence, RI, 10-2017

## INVITED LECTURES

- **Schorl, C.** and Sedivy, J.M., Kinetic analysis of cell cycle progression in c-Myc-null fibroblasts: Brown or not brown?, Dept. of Molecular Biology, Cell Biology and Biochemistry, Brown University, Providence, USA, 4/2002
- **Schorl, C.**, Using c-myc -/- cells to study the biology of c-Myc. University of Essen, Medical School, Ger, 8/2005
- **Schorl, C.**, Using Cre recombinase and conditional myc -/- cells to study c-Myc, University of Göttingen, Center of Molecular Biosciences, Department of Molecular Oncology, Ger, 12/2005
- **Schorl, C.** The Genomics and Proteomics Core Facility- How can the Core Facility support your research? Rhode Island's COBRE Centers and INBRE Center Core Expo, Providence, USA, 3/2007
- **Schorl, C.**, Illumina Sequencing @ Brown. Genome Assembly Special Forces Workshop. Brown University, Providence USA, 05-2011
- **Schorl, C.**, The role of the Genomics Core Facility in Next Generation Sequencing, CCV Bioinformatics Workshop, Brown University, 10-2011

## GRANTS

- Recipient of OVPR Core Research Facility (CRF) Infrastructure Program Grant of \$114 K for ddPCR machine (2017)
- Co-principal investigator, with Dr Richard Moore (Women & Infants Hospital, Providence), DEANS Award 'Establish genomic targets of HE4 and antisense therapy for treatment of ovarian cancer' 07-01-2014 - 06-30-2015
- Core Director on Center of Biological Research Excellence "Cancer Signaling Networks" grant, awarded to Professor W. Atwood, 04-01-2011 – 03-31-2016
- Core Director on NIH Center of Biological Research Excellence "Cancer Signaling Networks" grant awarded to Professor W. Atwood, 07/01/2005- 02/28/2010, extended to 02-28-2011
- Collaborator on NIH, Center of Biological Research Excellence "Perinatal Biology" grant awarded to Professor J. Padbury 7/1/2008-6/30/2013

## SERVICE

### TO THE UNIVERSITY

- Academic Advisor for 1<sup>st</sup> and 2<sup>nd</sup> year students, 2010 - current
- Concentration Advisor in 'Biology' and 'Health and Human Biology' , 2015 - current
- Faculty Advising Fellow, 09-2017 - current
- Guest lectures in BIOL1870
- Health Career Profession Advisor Search Committee (2016 to 2018)

### TO THE PROFESSION

- Grant reviewer for Science Foundation Ireland (2015, 2016)
- Grant reviewer for the MJ Murdock Charitable trust (2013)
- Grant reviewer for Florida (2016, 2017), Pennsylvania (2017) Depts. of Health
- Organizer and moderator of a panel discussion on microarray technology at the NERLSCD Meeting, Mountain View Grand, NH 10/2012

- Invited panelist on microarray technology at the 2010 ABRF Northeastern Regional Conference in Worcester, MA 10/2010
- Poster judge and mentor, SACNAS National Meetings (2015, 2016, 2017,2018)

#### **TO THE COMMUNITY**

- Volunteer judge at 2008 Rhode Island Science and Engineering Fair for High School students 3/2008

#### **AWARDS**

- 2018 Brown University Karen T. Romer Prize for Excellence in Undergraduate Advising and Mentoring
- Selected to participate in SACNAS Leadership Institute, Washington DC, 7/2015
- Recipient of competitive NIH NIGMS 4th Biennial National IDeA Symposium of Biomedical Research Excellence Travel Award, Washington DC for poster with the title “Expansion of Scientific Services at the Genomics Core Facility at Brown University”, 6/2012
- Association for International Cancer Research (AICR), UK, PhD Studentship 1996-2000