**Curriculum Vitae: Prof. Anton Gartner**

#### Personal:

Name: Anton Gartner

Date of birth: July 7th, 1967

Place of birth: Vienna, Austria

Nationality: Austrian

Marital Status: married

Children: Isabel Gartner (Oct 3rd, 1997)

 Tobias Gartner (August 25th, 2000)

Address private: 16 Adelaide Place.

 Dundee, DD3 6LF, UK

Address work: Wellcome Trust Centre for Gene Regulation and Expression

The University of Dundee

Dow Street

Dundee, DD1 5EH, UK

Tel.: +44 (0)1382 385809

E-mail: a.gartner@dundee.ac.uk

<http://www.dundee.ac.uk/biocentre/gartner/index.htm>

#### Education:

1977-1985 **Gymnasium** Neusiedl/See, Austria

1985-1990 **Study of Biology** at the University of Vienna, Austria

1989 **Diploma thesis** “Identification of plant cell-cycle genes”. Supervisor: Dr. Erwin Heberle-Bors, Institute for Microbiology and Genetics, University of Vienna, Austria

Sept. 1990 **Part II examinations** with special options in Genetics and Biochemistry,

Oct. 1990 **Graduation** (Master of Science) from the University of Vienna, Austria

Oct. 1990-Sept. 1994 **PhD. project** at the Institute for Molecular Pathology, Vienna, Austria

Research topic: Studies on the pheromone dependent MAP kinase pathway in *S. cerevisiae*. Supervisors: Dr. Gustav Ammerer and Dr. Kim Nasmyth

 Continuation of the PhD. project at the Institute for General Biochemistry and Molecular Cell Biology, University of Vienna, Austria

Nov. 1992-Feb. 1993 Visit at the University of North Carolina in Dr. Beverly Errede's lab, Chapel Hill, USA

Oct. 1994-Sept. 1995 **Social Service (Zivildienst**). Working as a nurse in a unit for internal medicine at the Rudolfsspital, Vienna, Austria

July 1995 **Graduation (PhD**) from the University of Vienna, Austria

#### Previous Positions:

Oct. 1995-Jan. 1997 **Post Doctoral Scientist** and **Teaching Assistant** at the Institute for General Biochemistry and Molecular Cell Biology, University of Vienna, Austria

Feb. 1997-Nov. 1999 **Post Doctoral Scientist** in the Laboratory of Dr. Michael Hengartner, Cold Spring Harbor Laboratory, New York, USA

Dec. 1999-March 2000 visiting **Post Doctoral Scientist** in the lab of Dr. Michael Glotzer at the Institute for Molecular Pathology, Vienna

April 2000-July 2004 **Junior Group Leader** at the Max Planck Institute for Biochemistry in the Department of Cell Biology, Munich, Germany

Since Aug. 2004 **Lecturer, CRUK Career Development Award Fellow**, University of Dundee, College of Life Sciences, Wellcome Trust Centre for Gene Regulation and Expression, UK

June 2009 **Successful Tenure Review** University of Dundee

Since Feb. 2010 **Reader,** CRUK Career Development Award Fellow, University of Dundee, College of Life Sciences, Wellcome Trust Centre for Gene Regulation and Expression, UK

Since Aug. 2010 **Wellcome Trust Senior Research Fellow,** University of Dundee, College of Life Sciences, Wellcome Trust Centre for Gene Regulation and Expression, UK

Since Jan. 2014 **Professor** Chair for Genetics

#### Original Scientific Publications

**Master Thesis, PhD and Postdoctoral Work**

1. J Györgeyey, **A Gartner**, K Németh, Z Magyar, H Hirt, E Heberle-Bors, D Dudits. Alfalfa heat shock genes are differentially expressed during somatic embryogenesis. ***Plant Mol. Biol*.,** 1991 June; 16(6): 999-1007.
2. H Hirt, M Mink, M Pfosser, L Bögre, J Györgeyey, C Jonak, **A Gartner**, D Dudits, E Heberle-Bors. Alfalfa cyclins: differential expression during the cell cycle and in plant organs. **The Plant Cell**, 1992 Dec; 4(12): 1531-1538.
3. H Hirt**, A Gartner**, E Heberle-Bors. An alfalfa cDNA encodes a protein with similarity to human snRNP-E. **Nuc. Acids Res.,** 1992Feb 11; 20(3): 613.
4. **A Gartner**, K Nasmyth, G Ammerer. Signal transduction in *Saccharomyces cerevisiae* requires tyrosine and threonine phosphorylation of FUS3 and KSS1. **Genes and Development*,*** *1992 Jul;* 6(7): 1280-1292.
5. B Errede, **A Gartner,** Z Zhou, K Nasmyth, G Ammerer. MAP kinase-related FUS3 from *S.cerevisiae* is activated by STE7 *in vitro*. **Nature,** 1993***,*** Mar 17**;** 362(6417): 261-264.
6. Z Zhou, **A Gartner**, R Cade, G Ammerer, B Errede. Pheromone-induced signal transduction in *Saccharomyces cerevisiae* requires the sequential function of three protein kinases. ***Mol. Cell Biol****.,* 1993 April;13(4): 2069-2080.
7. M Peter, **A Gartner**, J Horecka, G Ammerer and I Herskowitz. Far1 links the signal transduction pathway to the cell cycle machinery in yeast. ***Cell,*** 1993; 73(4): 747-760.
8. C Wilson, N Eller, **A Gartner**, O Vincente, E Heberle-Bors. Isolation and characterization of a tobacco cDNA clone encoding a putative MAP kinase. ***Plant Mol. Biol.,***1993 Nov; 23(3):, 543-551.
9. K Doi, **A Gartner**, G. Ammerer, H. Shinkawa, B. Errede, K. Suigimoto and K. Matsumoto. [MSG5, a novel protein phosphatase promotes adaptation to pheromone response in *S. cerevisiae*.](http://www.ncbi.nlm.nih.gov/pubmed/8306972) ***EMBO J.,*** 1994 Jan 1;13(1): 61-70.
10. **A Gartner\***, A Jovanovic, DI Jeoung, S. Bourlat, FR Cross, G Ammerer. Pheromone-dependent G1 cell cycle arrest requires Far1 phosphorylation, but may not involve inhibition of the Cdc28/Cln2 kinase, *in vivo*. ***Mol. Cell Biol***., 1998 Jul; 18(7), 3681-3691. **\*Corresponding author**
11. **A Gartner**, S Milstein, S Ahmed J Hodgkin, MO Hengartner. A conserved checkpoint pathway mediates DNA damage-induced apoptosis and cell cycle arrest in *C. elegans.* ***Mol*. *Cell,*** 2000 Mar.; 5(3), 435-444.

**Publications as Independent Group Leader**

1. S Ahmed, A Alpi, MO Hengartner, **A Gartner.** *C. elegans* RAD-5/CLK-2 defines a new DNA damage checkpoint protein. ***Current Biology,*** 2001 Dec 11; 11(24): 1-20.
2. B Schumacher, K Hofmann, S Boulton, **A Gartner.** The *C. elegans* homolog of the p53 tumor suppressor is required for DNA damage-induced apoptosis. ***Current Biology*,** 2001 Oct 30; 11(21): 1722-7.
3. SJ Boulton, **A Gartner**, J Reboul, P Vaglio, N Dyson, DE Hill, M Vidal. Combined functional genomic maps of the *C. elegans* DNA damage response. **Science**, 2002 Jan 4; 295(5552) 127-131.
4. U. Grueneberg, M Glotzer, **A Gartner**, EA Nigg. The CeCDC-14 phosphatase is required for cytokinesis in the *Caenorhabditis elegans* embryo. ***J. Cell Bio****l*., 2002 Sep 2; 158(5): 901-14.
5. ER Hofmann, S Milstein, SJ Boulton, M Ye, JJ Hofmann, L Stergiou, **A Gartner,** M Vidal, MO Hengartner.*Caenorhabditis elegans* HUS-1 is a DNA damage checkpoint protein required for genome stability and EGL-1-mediated apoptosis. ***Current Biology*,** 2002 Nov19; 12(22): 1908-18.
6. A Alpi, P Pasierbek, **A****Gartner,** J Loidl. Genetic and cytological characterization of the recombination protein RAD-51 in *Caenorhabditis elegans.* ***Chromosoma***, 2003 Jul; 112(1): 6-16
7. SJ Boulton, JS Martin, J Polanowska, DE Hill, **A Gartner,** M Vidal.BRCA1/BARD1 orthologs required for DNA repair in *Caenorhabditis elegans,* ***Current Biology***, 2004 Jan 6; 14(1): 33-9.
8. C Wicky, A Alpi, A Rose, **A Gartner**\*, F Müller. Multiple genetic pathways involving the *Caernohabditis elegans Bloom’s syndrome genes him-6*, *rad-51,* and *top-3* are needed to maintain genome stability in the germ line***, Mol. Cell Biol***., 2004 Jun; 24(11): 5016-27. **\*Co-corresponding author**
9. B Schumacher, C Schertel, N Wittenburg, S Tuck, S Mitani, **A Gartner**\*, B. Conradt, S. Shaham. (2005). *C. elegans ced-13* can promote apoptosis and is induced in response to DNA damage.
***Cell Death Differ***. 2005 Feb;12(2): 153-61, **\*Co-corresponding author**
10. B Schumacher, M Hanazawa, MH Lee, S Nayak, K Volkmann; R Hofmann, M Hengartner, T Schedl, **A Gartner**. Translational repression of *C. elegans* p53 by GLD-1 regulates DNA damage-induced apoptosis. ***Cell***, 2005 Feb 11;120(3): 357-368
11. B Meier, I Clejan, Y Liu, M Lowden, **A Gartner,** J Hodgkin, S Ahmed. *trt-1* is the *Caenorhabditis elegans* catalytic subunit of telomerase. ***PLoS Genetics*,** 2006 Feb; 2(2): e18
12. AM Woodward, T Göhler,MG Luciani,, M Oehlmann, X Ge**, A Gartner**, DA Jackson and JJ Blow. Excess Mcm2-7 license dormant origins of replication that can be used under conditions of replicative stress. ***J. Cell Biol.*,** 2006 Jun 5; 173(5): 673-83

1. V Jantsch, L Tang, P Pasierbek, A. Penkner, S Nayak, A Baudrimont, T Schedl**, A Gartner**, J Loidl. *Caenorhabditis elegans* *prom1* is required for meiotic prophase progression and homologous chromosome pairing. ***Mol Biol Cell***, 2007 Dec; 18(12): 4911-20.
2. H Lee, LJ Cho, N Lambacher, J Lee, SJ Lee, TH Lee, **A Gartner**, HS Koo. The *C. elegans* AMP-activated protein kinase AAK-2 is phosphorylated by LKB1 and required for resistance to oxidative stress and for normal motility and foraging behavior. ***J. Biol. Chem***., 2008 May 30; 283(22): 14988-14993
3. S Greiss, B Schumacher, K Grandien, J Rothblatt, **A Gartner.** Transcriptional profiling in *C. elegans* suggests DNA damage dependent apoptosis as an ancient function of the p53 family. ***BMC Genomics***, 2008 Jul 15; 9: 334.
4. J Mouysset, A Deichsel, S Moser, C Hoege, A Hyman, ***A Gartner****,* T Hoppe. Cell cycle progression requires the CDC-48UFD-1/NPL-4 complex for efficient DNA replication. ***Proc Natl Acad Sci, USA*,** 2008 Sep 2; 105(35): 12879-84.
5. S Greiss, J Hall, S Ahmed, **A Gartner**. *C. elegans* SIR-2.1 translocation is linked to a proapoptotic pathway parallel to *cep-1*/p53 during DNA damage-induced apoptosis. ***Genes & Development***, 2008 Oct 15; 22(20): 2831-2842.
6. SC Moser, S von Elsner, I Buessing, A Alpi, R Schnabel, **A Gartner.** Functional Dissection of *Caenorhabditis elegans* CLK-2/TEL2 cell cycle defects during embryogenesis and germline development. ***PLoS Genetics,*** 2009April 5(4): e1000451
7. B Meier, LJ Barber, Y Liu Y, L Shtessel, SJ Boulton, **A Gartner**\*, S. Ahmed.\* The MRT-1 nuclease is required for DNA crosslink repair and telomerase activity in vivo in C*aenorhabtidis elegans*. ***EMBO J.,*** 2009 Nov18;28(22):3549-63**, \*equal senior author contribution with S. Ahmed**
8. S Greiss and **A Gartner.** Sirtuin/Sir2 phylogeny, evolutionary considerations and structural conservation. **Mol Cells,** 2009 Nov30;28(5):407-15.
9. SJ Lee, **A Gartner**, M Hyun, B Ahn, and HS Koo. The *Caernohabditis elegans* Werner syndrome protein functions upstream of ATR and ATM in response to DNA replication inhibition and double-strand DNA breaks. ***PLoS Genetics,*** 2010 Jan; 6(1): e10000801.
10. S Ito, S Greiss, **A Gartner**, WB Derry. Cell non-autonomous *regulation C. elegans* germ cell death by *kri-1*. ***Current Biology,*** 2010 Feb 23; 20(4):333-338.
11. C MacKay, AC Déclais, C Lundin, A Agostinho, AJ Deans, TJ MacArtney, K Hofmann, **A Gartner**, SC West, T Helleday, DM Lilley, J Rouse. Identification of KIAA1018/FAN1, a DNA repair nuclease recruited to DNA damage by monoubiquitinated FANCD2.**Cell.** 2010 Jul 9; 142(1): 65-76
12. AP Bailly, A Freeman, J Hall, AC Déclais, A Alpi, D Lilley, S Ahmed, **A Gartner**. The *Caenorhabtidis elegans* homolog of Gen1/Yen1 resolvases links DNA damage signaling to DNA double-strand break repair. ***PLoS Genetics****,* 2010 Jul 15;6(7):e1001025
13. R Rutkowski, R Dickinson, G. Stewart, A. Craig, M. Schimpl, SM Keyse, **A Gartner.** Regulation of Caenorhabditis elegans p53/CEP-1-dependent germ cell apoptosis by Ras/MAPK signalling*.* ***PLoS Genetics,*** 2011 Aug; 7(8): e1002238
14. E Pourkarimi, S Greiss and **A Gartner**, Evidence that CED-9/Bcl2 and CED-4/Apaf-1 localization is not consistent with the current model for C. elegans apoptosis induction. **Cell Death and Differentiation,** 2012, Mar; 19(3): 406-152
15. M Larance, AP Bailly, E Pourkarimi, RT Hay,G Buchanan, S Coulthurst, DP Xirodimas, **A Gartner\*,** AI Lamond, Stable-isotope labeling with amino acids in nematodes. **Nature Methods**, 2011 Aug 28;8(10): 849-851 **\*Co-corresponding author**
16. A Franz, M Orth, PA Pirson, R Sonneville, JJ Blow**, A Gartner**, O Stemmann, T Hoppe. CDC-48/p97 Coordinates CDT-1 degradation with GINS Chromatin dissociation to ensure faithful DNA replication. **Mol. Cell**, 2011 Oct 7; 44(1): 85-96.
17. R Sonneville, M Querenet. A Craig, **A Gartner**\*, JJ Blow. The dynamics of replication licensing in live *Caenorhabditis elegans* embryos. ***Journal of Cell Biology,*** 2012Jan 23; 196(2): 233-246 **\*Co-corresponding author**
18. B Liu, H Du, R Rutkowski, **A Gartner**, X Wang. LAAT-1 is the lysosomal lysine/arginine transporter that maintains amino acid homeostasis. **Science**, 2012 Jul 20;337(6092):351-354.
19. N Masoudi, L Fancsalszky, E Pourkarimi, T Vellai, A Alexa, A Reményi**, A Gartner**, A Mehta, K Takács-Vellai. The Nm23-H1/H2 homolog NDK-1 is required for full activation of Ras signaling in *C. elegans*. **Development**, 2013 Aug. 140:3486-95.

1. A Agostinho, B Meier, R Sonneville, M Jagut, A Woglar, J Blow, V Jantschand **A Gartner**. Combinatorial Regulation of Meiotic Holliday Junction Resolution in C. elegans by HIM-6 (BLM) Helicase, SLX-4, and the SLX-1, MUS-81 and XPF-1 Nucleases***.* PLoS Genetics**, 2013 Jul 9(7): e1003591
2. A Akay, A Craig, N Lehrbach, M Larance, E Pourkarimi, JE Wright, A Lamond, E Miska and **A Gartner**. RNA-binding protein GLD-1/quaking genetically interacts with the mir-35 and the let-7 miRNA pathways in *Caenorhabditis elegans.* **Open Biol.** 2013 Nov 20;3(11):130151.
3. B. Meier, SL Cooke, J Weiss, AP Bailly, LB Alexandrov, J Marshall, K Raine, M Maddison, E Anderson, MR Stratton, **A Gartner\***, PC Campbell. *C. elegans* whole genome sequencing reveals mutational signatures related to carcinogens and DNA repair deficiency. **Genome Res**. 2014, Jul 16. pii: gr.175547.114. [Epub ahead of print] **\*Co-corresponding author**
4. Masudi N, Ibanez-Cruceyra P, Offenburger SA, **Gartner A**, Tetraspanin TSP-17 Protects Dopaminergic Neurons against 6OHDA- Induced Neurodegeneration in *C. elegans*. ***Plos Genetics***, 2014, Dec 4th.
5. Pelisch F, Sonneville R, Pourkarimi E, Agostinho A, Blow JJ, **Gartner A,** and Hay RT, Dynamic SUMO modification regulates mitotic chromosome assembly and cell cycle progression in *Caenorhabditis elegans.* ***Nature Communication****,* 2014, Dec 5th.
6. Freeman AD, Liu Y, Déclais AC, **Gartner A**, Lilley DM. GEN1 from a thermophilic fungus is functionally closely similar to non-eukaryotic junction-resolving enzymes. ***J Mol Biol****.* 2014 Oct 11.
7. Adam Shlien, Brittany B. Campbell, Richard de Borja, Ludmil B. Alexandrov, Daniele Merico, David Wedge, Peter Van Loo, Patrick S. Tarpey, Paul Coupland, Sam Behjati, Aaron Pollett Tatiana Lipman Abolfazi Heidari, Shriya Deshmukh, Naama Avitzur, Bettina Meier, Moritz Gerstung, Ye Hong, Diana M Merino, Manasa Ramakrishna, Marc Remke, Roland Arnold, Gagan B. Panigrahi, Neha P. Thakkar, Karl P. Hodel, Erin E. Henninger, A. Yasemin Göksenin, Doua Bakry, George S Charames, Harriet Druker , Jordan Lerner-Ellis, Matthew Mistry, Rina Dvir, Ronald Grant, Ronit Elhasid, Roula Farah, Glenn P. Taylor, Paul C. Nathan, Sarah Alexander, Shay Ben Shachar, Simon C Ling, Steven Gallinger, Shlomi Constantini, Peter Dirks, Annie Huang, Stephen W. Scherer, Richard G Grundy, Carol Durno, Melyssa Aronson, **Anton Gartner**, M Stephen Meyn, Michael D Taylor, Zachary F Pursell, Christopher E Pearson, David Malkin, P Andrew Futreal, Michael R Stratton, Eric Bouffet, Cynthia Hawkins, Peter J Campbell and Uri Tabori. Hereditary and Somatic Mutations of Replication Error Repair genes Result in Rapid Onset of Ultra Hypermutated Cancers. **Nature Genetics** 2015, Feb 12;6:6352. doi: 10.1038/ncomms7352
8. Larance M, Pourkarimi E, Wang B, Murillo AB, Kent R, Lamond AI, **Gartner A**. Global proteomics analysis of the response to starvation in *C. elegans*. **Mol Cell Proteomics**. 2015 May 11. pii: mcp.M114.044289.
9. Remi Sonneville, Gillian Craig, Karim Labib, **Anton Gartner\*** and J. Julian Blow Linking DNA replication to Chromosome Condensation, Cell Reports, in press, Jul 21;12(3):405-17 **\*Co-corresponding author**

#### Scientific Reviews, Methods Chapters and Book Chapters

**PhD and Postdoctoral Work**

# **A Gartner.** The role of protein phosphatases in the adaptation to the pheromone response in yeast. In ***Advances in Protein Phosphatases***; Leuven University Press 1994, 153-162.

1. **A Gartner** and MO Hengartner. Genetic approaches to programmed cell death in *C. elegans*. In **‘*When Cells Die*’**; John Wiley and Sons, Publications 1997, 131-146.

**Publications Published as Independent Group Leader**

1. **A Gartner,** A Alpi and B Schumacher. Programmed Cell Death in *C. elegans.* ***Stefan Grimm ed. Bios***(2003).
2. B Schumacher, A Alpi, **A Gartner**. Cell cycle: check for asynchrony. ***Current Biology*,** 2003 Jul15; 13(14): R560-R562.
3. A Gartner. Genome-wide genetic screening by RNAi - a glimpse of the future. *The ELSO Gazette*, 2003 Vol 14, April
4. **A Gartner**, AJ MacQueen, AM Villeneuve. Methods for analyzing checkpoint responses in *Caenorhabditis elegans.* "Checkpoint Controls and Cancer". ***Methods Mol. Biol.*, 2004;** 280: 257-74.
5. AM Leroi, A Bartke, G De Benedictis, C Franceschi, **A Gartner**, E Gonos, ME Feder, T Kivisild, S Lee, N Kartal-Ozer, M Schumacher, E Sikora, E Slagboom, M Tatar, Al Yashin, J Vijg, B Zwaan. What evidence is there for the existence of individual genes with antagonistic pleiotropic effects. ***Mech. Ageing Dev*.,** 2005; 126(3): 421-9.
6. B Schumacher and **A Gartner**. Translational regulation of p53 as a potential tumor therapy target. ***Future Oncol.***, 2006; 2(1):145-153
7. B Meier and **A Gartner.** Meiosis: checking chromosomes pair up properly. ***Current Biology*,** 2006 Apr. 4;16(7):R249-R251
8. **A Gartner**, PR Boag, and TK Blackwell. Germline survival and apoptosis. WormBook, ed. The *C. elegans* Research Community, **WormBook**, 2008 Sept 4: 1-20
9. A Bilitou, J Watson, **A Gartner,** S Ohnuma. The NM23 family in development. **Molecular and Cellular Biochemistry**. 2009 Sept; 329 (1-2): 17-33
10. R Rutkowski, K. Hofmann, **A Gartner.** Phylogeny and function of the invertebrate p53 superfamily. **Cold Spring Harbor Perspect. Biol**., 2010 Jul; 2(7): a001131
11. R Rutkowski, and **A Gartner**. Tagging the dead: a bridging factor for *Caenorhabditis elegans* phagocyte receptors. **Nature Cell Biol.,** 2010 Jul; 12(7) 638-640
12. A Bailly and **A Gartner**. *Caenorhabditis elegans* Radiation Responses in “Molecular Determinants of Radiation Response”, **Current Cancer Research 2011**, 101-123, Springer press
13. AL Craig, SC Moser, AP Bailly, **A Gartner.** Methods for studying the DNA damage response in the *Caenorhabdatis elegans* germ line. **Methods Cell Biology** 2012; 107:321-52.
14. A Bailly and **A Gartner,** Germ cell apoptosis and DNA damage responses. **Adv Exp Med Biol**. 2013; 757: 249-76
15. R Rutkowski and **A Gartner.** The shark in us: learning about the evolution of the p53 regulatory circuit. **Cell Cycle** 2012, Jan. 15; 11 (2):216-7
16. E Pourkarimi and **A Gartner.** If you don’t want them shed them. **Cell Research,** 2013 Feb.; 23(2):171-2
17. **A Gartner** and A Akay. Stress Response: Anything that Doesn’t Kill You Makes You Stronger. **Curr Bio**l. 2013 Nov 18;23(22):R1012-4.
18. B Meier and **A Gartner.** Having a direct look: Analysis of DNA damage and repair mechanisms by Next Generation Sequencing. **Experimental Cell Research,** 2014, Nov 15th.

# **Patent Applications**

MO Hengartner, **A Gartner** and S Milstein. (1998). Damage induced apoptosis. US patent application No. 60/090,507

# **Fellowships and Awards**

Max Kade fellowship (Feb 1997, declined), Austria, USA

EMBO long-term fellowship (June 1997), Europe

Schroedinger fellowship (April 1999), Austria

CR-UK Career Development Award (December 2003), UK

Wellcome Trust Senior Research Fellowship (April 2010), UK

#### Grants

**Far1 regulation in pheromone dependent cell cycle arrest in *S. cerevisiae*** (Jubiläumsfonds der österreichischen Nationalbank 1996), Austria

**Genetic and Molecular Analysis of DNA Damage induced Apoptosis and Cell Cycle Arrest in *C. elegans*** (Deutsche Forschungsgemeinschaft 2000), Germany

**Analysis of meiotic, apoptosis-inducing checkpoint pathways by genomics-based, forward genetic and two hybrid approaches in *C. elegans***(Deutsche Forschungsgemeinschaft 2001), Germany

**Genetic and Molecular Analysis of DNA Damage induced Apoptosis and Cell Cycle Arrest in *C. elegans*** (Deutsche Forschungsgemeinschaft 2003), Germany

**C11852/A4500 CR-UK** Career Development Award Elucidation of DNA damage checkpoint pathways by *C. elegans* genetics CR-UK Career Development Award 2003). £955,885 (August 2004 - August 2010), UK

**C11852/A5991 CR-UK** Project Grant (May 2005), Elucidation of Novel Negative Regulators of DNA Damage Induced Apoptosis Using *C. elegans* Genetics. £130,802 (Jan. 2006 - Jan. 2009), UK

**Association for International Cancer Research** (Nov. 2005), Combined biochemical and genetic approach to elucidate *sir-2* histone deacetylase function in *C. elegans* DNA damage induced apoptosis. £81,030 (Oct. 2006 -Oct. 2009), UK.

**Parkinson Disease Society** (March 2006), “Elucidation of PINK-1 and LRRK2 function in Parkinson disease by a combined genetic and biochemical approach in the *C. elegans* model system” £151,091 (Oct. 2006 - Oct. 2009) (shared with Dario Alessi), UK

**081923/Z/07/Z Wellcome Trust** (April 2008 - April 2011), Combined genetic and biochemical *C. elegans* based approach to understand differential substrate recognition and the mode of translational repression of theconserved STAR mRNA binding protein GLD-1 £331,185, UK

**COST EU travelling grant** (shared with ~25 labs in Europe, from 2008) ca £350,000, EU

**C11852/A8052 4 years CR-UK Studentship** (2007-2011) ca £120,000, UK

**H-0709 Parkinson’s Disease Society 3 years studentship** (Aug. 2008 – Aug. 2011), £85,000, UK

**G-0912 UK Parkinson Disease Society** (Jan. 2010), “Establishing and Exploiting *C. elegans* as a Model for Parkinson’s” £196,322 (Jan. 2010-Jan. 2013), UK

**0909444/Z/09/Z Wellcome Trust Senior Research Fellowship** **and Sunset Funding** (May 2010), “Combined genetic and biochemical approaches to uncover and characterize redundant factors in late stages of recombinational repair” £1,722,757 (Aug. 2010-July. 2016).

**BB/J015199/1 BBSRC** “SUMO proteomics in *C. elegans*; germ line, meiosis and the DNA damage response”. Together with Prof Ronald Hay (Jan. 2013-Jan. 2016), £303,092

**C11852/A14695** CRUK project grant Exploring and Exploiting *C. elegans* as a model to better understand apoptosis induction; combined cytological, genetic and proteomics based approaches (July 2012-June 2015)~£180,000

**063187 Wellcome Trust Strategic Award** (Aug. 2013- Aug. 2017). Mutational Signature of DNA damage and repair processes £4,291,877 (Gartner lab share ~ £600 000 if sequencing at Sanger centre is included).

|  |
| --- |
|  |

# **Reviewing**

I reviewed manuscripts for

Aging Cell, Cell, Cell Death and Differentiation, Current Biology, Development, EMBO J., Experimental Gerontology, FEBS letters, Genes and Development, Genetics, Journal of Cell Science, MCB, Nature, Nature Cell Biology, Nature Review Cell Biology, Oncogene, PLoS Genetics, PLoS One, and Science. I also reviewed grants for CR-UK, the BBSRC, the MRC, the Wellcome Trust, the Parkinson Disease Society, for the German DFG and the Boehringer Ingelheim Fonds, for the Swiss National Fonds, and junior and senior ERC grants for the European Science Foundation. Currently I review around 24 papers and grant application per year. In addition, I reviewed ~ 12 grants/ year for the Helsinki panel (see below). I also acted as reviewer for the Canadian Terry Fox New Frontiers Program Project. I acted as a reviewer for Tenure Decisions for the Clare Hall laboratories (2009, 2010) and for the Danish Biotechnology Research and Innovation Centre (2011).

# **Service in Review Panels**

German DFG study section, Bonn, 2005 Germany

German Landesstiftung Baden Wuertemberg, Stuttgart 2005 Germany

EU COST review panel, Brussels, May 2008, EU

Finnish Academy of Sciences, Biomedicine I, review panel June 2008), Helsinki, Finland

Finnish Academy of Sciences, Biomedicine I, review panel June 2009), Helsinki, Finland

German Landesstiftung Baden Wuertemberg, Stuttgart July, 2009 Germany

Finnish Academy of Sciences, Biomedicine I, review panel June 2010), Helsinki, Finland

Canadian Terry Fox New Frontiers Program April 2010

# **Service as PhD Examine**r

University of Dundee Kathryn L. Ball lab, 2006

 Frances Fuller Pace lab, 2007

 Jean-Christophe Bourdon lab, 2008

 Julian Blow lab, 2008

IFROM Milano, Italy Fabrizio d'Adda di Fagagna lab, Jan 2009

University of Edinburgh Hiro lab, Mai 2010

University of Copenhagen Soerensen lab, Jan. 2011

University of Cambridge Eric Miska lab, Feb. 2011

University of Dundee Miratul Muquit lab, Oct. 2013

IFROM Milano, Italy Marco Foiani Lab, Oct. 2013

Dundee Dario Alessi Lab, April 2014

Dundee Rouse Lab, May, 2014

Dundee Alexandru Lab, May 2014

Cambridge Ahringer Lab, Dec. 2014

Manchester Poulin Lab, Dec. 2014

University of Dundee Miratul Muquit lab, Feb. 2015

# **Service as External PhD Advisor**

Univ. of Zurich, Switzerland Michael Hengartner, August 2009

# **Service in CLS (College of Live Sciences) Committees and Administrative Roles**

Deputy to Tom Owen Hughes for Wellcome Trust Centre for Gene Regulation and Expression, PhD program

Responsible for Wellcome Trust Centre for Gene Regulation and Expression Summer School.

Member of the CLS planning committee for Integrated Masters Degrees

Responsible for Wellcome Trust Centre for Gene Regulation and Expression recommendations for Dundee undergraduate Curriculum

Deputy to Michael Stark for Link to School of Learning and Teaching

Since 2013 Judge for the Tim Hunt Price

Since 2013 BBSRC EASTBIO PHD Program Theme leader (Word Class Underpinning Biosciences) (17 PhD students in Dundee, Aberdeen, St. Andrews and Edinburgh)

# **Service in National and International Committees**

I was in the organization committee for the 2004 European Worm Meeting.

(2009-2012) Management Committee Member of EU Cancer and Control of Genomic Integrity (CANGENIN) action.

Since 2012 University of Dundee representative for the Scottish University of Life Sciences Alliance (SULSA) for Cell Biology.

Co-organizer of 2013 International *C. elegans* meeting, Los Angeles

Co-organizer of 2015 International *C. elegans* meeting, Los Angeles

# **Teaching and Supervising**

1997 “Biochemisches Praktikum für Fortgeschrittene” (biochemical course for advanced students), University of Vienna, Department of Biochemistry,

2000 to 2003 “Vienna Worm Course” (University of Vienna, Department of Cytology, with Verena Jantsch). **Annual 2 weeks practical course and students seminar series on *C. elegans***

2000 to 2004 Taking care of rotation students at the MPI for Biochemistry (“**Tübinger Studenten**”). On average I had 4 rotation students per year for 6 to 12 weeks each.

Since 2004 **Dundee, Wellcome Trust Superseminar**

2006-2012 **Dundee Cell Biology Course** (2 lectures)

2007-2012 **Dundee Developmental Genetics Course** (3 lectures, two further lectures were given by my Post Doc Rachael Rutkowski 2007-2010)

2010-2014 Two lectures **4th year Genomics Course**

 Three hours (lecture and paper discussion), **4th year Developmental Biology, Invertebrate Development**.

2010-2011 Three lectures, **Dundee Masters Course in Cancer Biology (DNA repair)**

2007-2011 Annual lecture at the **ENS Lyon, France**

Jan 2009 Three lectures at the **Pasteur Institute, Paris, France**

Since 2011I initiated and I am in charge of the **Dundee GRE International Summer School**, we take in 8-12 students in place them in to various labs for ~3 moths, student attend several lectures and present there results in a mini symposium.

From 2014 4 lectures **GRE 3rd year course**, recombination, DNA repair and apoptosis

 4 lectures, 1 tutorial, 3rd year genetics course, Genetics and Genomics

 1 lecture, 2 tutorials **GRE 4th year course**

**Diploma Students (‘old’ German System)**

* 1. Katrin Volkman **(PhD thesis at GSF, Munich Germany, now Sanger Centre, UK)**

2004-2005 Nils Lambacher **(Research Technician, Centre for Genome Damage and Stability, UK)**

2011-2012 Joerg Weiss **(PhD Toronto, Canada)**

**6 Month Rotation Students**

2006 Magali Billet, Université des Sciences et Technologies de Lille

**(now at Novartis Institutes for BioMedical Research, Basel Switzerland from 2007)**

2007 Adriana Milicov, Université des Sciences et Technologies de Lille

**(now at Novartis Institutes for BioMedical Research, Basel Switzerland from 2008)**

**3 Month Rotation Students**

2010/11 Mathieu Querenet, ENS Lyon **(PhD Lyon)**

**Honors Students**

2005/2006 Nicole Heppel (PhD student, Ducan Baird, Cardiff)

2008/2009 Alexander v. Wiliamowitz-Moellendorff (PhD student, MRC unit, Dundee)

2009/2010 Saif El Din Shehata (PhD student, MRC unit, Dundee)

2010/2011 Goeffrey Denwood (PhD student, Ninewells Hospital, Dundee)

2011/2012 Markus Doll (Masters and Phd Student Cologne, Germany)

2012/2013 Amanda Lopez (Phd Student, Cologne, Germany)

**PhD students**

2000 to 2004 Arno Alpi **(Principal Investigator, Scills CLS Dundee, UK, from Sept 2009)**

 Björn Schumacher **(Principal Investigator, University of Cologne, Germany, since Jan. 2009**)

2003 to 2008 Sebastian Greiss (funded by CR-UK, AICR and Dundee CLS, Post Doc till June, 2009)

**(Post Doc with Jason Chin LMB, University of Cambridge, now PI at the University of Edinburg)**

Aymeric Bailly (funded by CR-UK, and Dundee CLS, Post Doc in my lab till June 2010, **now semi-independent position, University of Montpellier, France)**

 Sandra Moser funded by CR-UK and Dundee CLS) **(Post Doc with Jason Swedlow, CLS Dundee, since 2008)**

2007-2011 Ehsan Pourkarimi (funded by CR-UK)

**Alper Akay (funded by a Wellcome Trust project grant), (now Post Doc, Gurdon Insitute, Cambridge)**

2008-2013 Neda Masudi (funded by the Parkinson’s Disease Society), (**now Post Doc Columbia University, New York, Oliver Hobert)**

Ana Agostinho (funded by BBSRC studentship to Dundee CLS) (**now Post Doc Christer Hoog laboratory, Karolinska, Stockholm, Sweden,)**

From 2013 Aline Reydon, CAPES fellowship (Aline resigned early 2015)

 Sarah Lena Offenburger, Wellcome Trust Student

 Simone Bertolini, BBSRC

From 2014 Yasir Malik

**Former Post Docs (former)**

* 1. co-advising Ulrike Grueneberg **(Principal Investigator and CR-UK Career Development Award Fellow, University of Liverpool, since 2007)**

2005-2009 Giulio Mafioletti (funded by CR-UK, **now physiotherapist)**

2006-2011 Rachael Rutkowski (funded by CR-UK and WT VIP award, **senior postoc WHEI, Melbourne, Australia, new science teacher Melbourne**)

2006- Remi Sonneville (shared with Julian Blow, funded by AICR and an EMBO long term fellowship), now with Karim **Labib, MRC Dundee**

2006-2010 Pablo Ibanez (funded by the Parkinson’s Disease Society, **now senior postoc ENS Paris**)

2007-2011 Ashley Craig (funded by a Wellcome Trust project grant, **now free-lance editor, proof-reader, Trivalent Editing, Tayside**)

2009-2011 Aymeric Bailly (funded by CRUK and Wellcome Trust VIP award, **now Postdoc, CNRS Montpellier, France)**

2012 Alper Akay**,** now post Doc with **Erich Miska, Gurdon Institute, Cambridge, UK**

2013 Ehsan Pourkarmi**,** now post Doc with **Iestyn Whitehouse,Sloan-Cettering New York**

2011-2015 Alexander Holms (funded by Parkinson’s UK and the Wellcome Trust) **Now EBI Cambridge (data curator)**

2013-2015 Vikram Narayan, **Henry Wellcome Fellow**, joint with Angus Lamond and Cynthia Kenyon, now Calico, Google, San Francisco

**Current Post Docs**

2005 Bettina Meier (funded by the Wellcome Trust)

2010 Bin Wang (funded by the Wellcome Trust)

2011 Ye Hong (funded by the Wellcome Trust)

2013 Federico Pelisch, **EU Marie Curie Fellow**, joint with Ronald Hay

2013 Victor Gonzales-Huici (funded by CRUK)

**Invited Talks and Oral Presentation at Meetings (since 2000)**

Sept. 2001 EMBO cell cycle workshop, Salamanca, Spain

Nov. 2001 University of Vienna, Austria

Mar. 2003 University of Fribourg, Switzerland

 Gurdon Institute, Cambridge, UK

May 2003 German Society for Cell Biology, Bonn, Germany

 ISREC, Lausanne, Switzerland

 University of Fribourg, Switzerland

July 2003 Technical University of Braunschweig, Germany

Aug. 2003 Genetic Toxicology DNA repair meeting, Oxford, UK

Sept. 2003 ENS Lyon, France

Nov. 2003 University of Regensburg, Germany

Dec. 2003 EU meeting Brussels (Aging), EU

 University of Hamburg, Germany

 University if Oslo, Norway

Jan. 2004 University of Sheffield, UK

Feb. 2004 Institute for Aging Research, Innsbruck, Austria

Sept. 2004 EMBO workshop, Corsica, France

Nov. 2004 University of Zurich, Switzerland

June 2005 University of Newcastle, UK

July 2005 Plenary talk at International worm meeting (Los Angeles), USA

Oct. 2005 University of Turku, Finland

 University if Helsinki, Finland

Nov. 2005 University of Milano, Italy

Dec. 2005 University of Aberdeen, UK

Jan. 2006 Apoptosis Meeting Obergurgl, Austria

Mar. 2006 European Apoptosis Meeting, Crete, Greece

 Dundee/ Toulouse Meeting, Toulouse, France

April 2006 Ninewells Hospital Dundee University, UK

University of Montreal, Canada

 University of Toronto, Canada

Jan. 2007 MRC Edinburgh, UK

Feb. 2007 CR-UK Fellows Meeting, UK

April. 2007 p63 Workshop Rome, Italy

 FMI Basel, Switzerland

May 2007 ENS Lyon, France

Nov. 2007 University of York, UK

Feb. 2008 Ninewells Hospital, Dundee, UK

 MRC unit Sussex, UK

June 2008 ENS Lyon, France

 Sloan Kettering, New York, USA

 Madison *C. elegans* topic meeting, USA

Nov. 2008 University of Helsinki, Finland

Dec. 2008 CR-UK Fellows Meeting, UK

Jan 2009 IFROM, Milano Italy

 Pasteur Institute, Paris, France

 Apoptosis Meeting Obergurgl, Austria

Mar. 2009 University of Michigan Medical School, Ann Arbor, USA

 Harvard Medical School, Boston, USA

 University of Liverpool, UK

May 2009 ENS Lyon, France

 GENICA/CANGENIN Workshop in Athens, Greece

June 2009 Association of Radiation Research, Meeting, Glasgow, UK

 Plenary talk at International worm meeting (Los Angeles), USA

Aug. 2009 p63/p73 workshop, Toronto, Canada

Oct. 2009 Korean Cell Biology Meeting, Seoul, Korea

 Institute of Genetics and Developmental Biology, Chinese Academy of Sciences. Beijing, China

 The National Institute of Biological Sciences (NIBS), Beijing, China

Nov. 2009 Biotech Research and Innovation Centre (BRIC), University of Copenhagen, Denmark

Institute for Genetics, Cologne, Germany

Jan. 2010 A\*STAR meeting Singapore

May 2010 ENS Lyon, France

Dec 2010 Birmingham University

Feb 2011 Invited talk, Embo Molecular Medicine Meeting Obergurgl (Given by post doc Rachael Rutkowski), Austria

Mar. 2011 Dundee/ Belfast CRUK meeting

May 2011 ENS Lyon, France

 SPRING, Parkinson Disease Conference, York

June 2011 Cardiff University

Nov. 2011 Helsinki University

April 2012 GENICA/CANGENIN Workshop in Barcelona, Spain

 British Cell Biology Meeting, Warwick, UK

Sept 2012 EMBO, Nuclease Meeting France

Sept 2012 CNRS, Montpellier, France

Jan. 2013 EMBO conference Obergurgl, Austria, Death in the Alps

June 2013 CNRS, Paris, France

Talk International Worm Meeting, Los Angeles, USA

July 2013 **Keynote Talk** Annual Meeting of the United Kingdom Environmental Mutagenesis Society (UKEMS, Bristol)

Sept. 2013 EMBO conference meiosis, Dresden, Germany

Oct. 2013 EMBO conference DNA damage response, Greece

 Talk IFOM, Milano, Italy

Nov. 2013 University of Cologne

Nov. 2013 NCBS, Bangalore, India

Dec. 2013 University of Zuerich

Dec. 2013 Ninewells Hospital, Dundee

Feb 2014- St Andrews University

June 2014 Kings College, London

June 2014 2014 Gordon Research Conference on Mutagenesis, Spain

July 2014 UKEMS Meeting Lancaster

Sept 2014 Max Perutz, 100th birthday memorial conference, Max Perutz Laboratories, Vienna

Nov 2014 University of Zuerich

Dec 2014 Gurdon Institute, Cambridge, UK

March 2015 ‘Gesellschaft fuer Umwelt und Mutationsforschung,Germany’, Meeting, Duesseldorf, Germany

Nov 2015 Nuclease Meeting Brno, Czech Republic

**Public Engagement**

May. 2012 Talk Parkinson’s Support Group, Edinburgh

Sept. 2012 Talk Parkinson’s Support Group, Perth

Sept. 2012 Talk Parkinson’s Support Group, Elgin

Nov. 2012 Talk Parkinson’s Support Group, Dumfries

Feb. 2012 Visit Parkinson’s UK, local School kids

March 2012 Visit Parkinson’s UK, members of local Branches

March 2012 Donation of local family (£600) for our Parkinson’s research

Dec. 2011-May 2012 Helping with Parkinson’s UK Fundraising which was tailored on our project grant, leaflet all based on our project grant (I understand that ~£140000 was raised!!!)

June 2012- helping with Parkinson’s UK information brochure, fundraising, “Dave the Worm.” Dave the worm is correctly promoted on the Internet, and I understand that initial fundraising related to this campaign is above initial expectations

 <https://www.facebook.com/davetheworm>

May. June 2013 Work experience one afternoon each, four times 2-3 5th year High School students (age 16)

Nov. 2013 Parkinson’s UK Scottish Parliament Event

May 2014 Work Experience 5th year high school student (two days)

**Talks of my Group Members (since 2005)**

May 2006 Sebastian Greiss, European *C. elegans* Meeting, Hersonissos, Crete, Greece,

Jan. 2007 Bettina Meier, Genome Stability Network meeting, Cambridge, UK

May 2007 Bettina Meier, CSHL, meeting Telomere Biology, Cold Spring Harbor, USA

June 2007 Sebastian Greiss, International *C. elegans* Meeting, University of California at Los Angeles

 Rachael Rutkowski, International Cell Death Society Symposium, Nice, France

April 2008 Bettina Meier, European *C. elegans* meeting, Carmona, Spain

 Sebastian Greiss, European *C. elegans* meeting, Carmona, Spain

June 2008 Bettina Meier, BACR Conference Cellular Immortality: from Telomerase to Cancer Stem Cells, Stratford-Upon-Avon, UK

Sept. 2008 Aymeric Bailly, Cancer and Control of Genomic Integrity, Copenhagen, Denmark

Jan. 2009 Rachael Rutkowski, EMBO Workshop on Model Organisms in Cell Death Research, Obergurgl, Austria

May 2009 Bettina Meier GENICA/CANGENIN Workshop in Athens, Greece

Aug. 2009 Ehsan Pourakemi, COST/CANGENIN meeting Stockholm

 Aymeric Bailly, COST/CANGENIN meeting Stockholm

Feb. 2010 Pablo-Ibanez Parkinson’s Disease Society PI meeting London

June 2010 Ehsan Pourakemi, *C. elegans* topic meeting Heiderlberg, Germany

Bettina Meier, EMBO workshop Replication/repair & segregation of chromsomes, Freiburg, Germany

Remi Sonneville, EMBO workshop Replication/repair & segregation of chromsomes, Freiburg, Germany

Sept. 2010 Bettina Meier, EMBO conference, Telomeres and DNA repair, Marseille, France

Oct. 2010 Remi Sonneville, COST/CANGENIN meeting Milano

Mar. 2011 Rachael Rutkowski, EMBO molecular medicine workshop, Cell Death and Disease, Austria

Mar. 2011 Ehsan Pourakemi, EMBO molecular medicine workshop, Cell Death and Disease, Austria.

July 2011 Neda Masudi, Los Angeles, International Worm Meeting, USA

Sept 2011 Bettina Meier, COST/CANGENIN meeting Amsterdam

Sept 2011 Joerg Weiss, COST/CANGENIN meeting Amsterdam

Jan. 2013 Bettina Meier, Genome Stability Network meeting, Cambridge, UK

March 2013 Ana Aghostinho, British Meiosis, Meeting Cambridge

May 2014 Virkram Narayam. Edinburgh, PoBBBs seminar series, Biological Chemistry, Biophysics and Bioengineering Society)

Jan. 2014 Ye Hong, Genome Stability Network meeting, Cambridge, UK

May 2014 Ye Hong, UK Meiosis Meeting, Edinburgh, UK.

**Poster Prizes Won by my Group Members**

2006 Aymeric Bailly, School of Life Science, 2nd year PhD student presentations Dundee 2006 (2nd)

Sandra Moser, School of Life Science, 2nd year PhD student presentations Dundee 2006 (3rd)

Sebastian Greiss, School of Life Science, 2nd year PhD student presentations Dundee 2006 (4th)

2008 Aymeric Bailly, The Biochemical Society, Annual meeting Cambridge 2008, UK, (1st)

2009 Rachael Rutkowski, COST/CANGENIN meeting Stockholm

 Ehsan Pourkaremi, best PhD student image award. Visions of discovery. Dundee

2010 Ehsan Pourkaremi, GRE symposium, 1st poster award

 Ehsan Pourkaremi, 2nd microscopy imaging award, Dundee

2011 Ehsan Pourkaremi, 3rd poster prize, International *C. elegans* Meeting, Los Angeles

2012 Ana Aghostinho, GRE poster price

**Collaborations within the Dundee CLS and Medical School**

**Angus Lamond, Centre for Gene Regulation and Expression, Dundee**.

We are collaborating on *C. elegans* quantitative proteomics and its application organismal stress responses and aging.

**David Lilley,** **DNA Nucleic Acid Structure Research Group DNA, Dundee.**

We have a very fruitful collaboration on the biochemistry of GEN-1 Holliday junction Resolvase enzymes.

**Dario Alessi and Miratul Muquit, MRC Protein Phosphorylation Unit**, Dundee.

We share an interest in Parkinson’s Disease, and analyse *C. elegans* homologs of PINK-1 and LRRK2 protein kinases. Over the past years we built up a grouping of 5 students and Post Docs working on projects related to Parkinson’s disease.

**Dimitirs Xirodimas/ Ron Hay, Centre for Gene Regulation and Expression, Montpellier and Dundee**.

We have a common project on *C. elegans ulp-3*, which encodes the homolog of the NeddP1 deneddylation protease. A deletion of this protease is defective in DNA damage induced apoptosis. Ron and myself also have a joint postdoc working on *C. elegans* somoylation.

**John Rouse, MRC Protein Phosphorylation Unit, Dundee**

We have neighbouring labs and have joint lab outings approximately every 6 months. At the moment we contribute to one of John’s projects by analysing the *C. elegans* homolog of a conserved gene needed for DNA cross link repair.

**Julian Blow, Centre for Gene Regulation and Expression, Dundee.**

We have a joint Postdoc, Remi Sonneville focused on characterizing key *C. elegans* DNA replication genes and their differential regulation during embryonic, late larval and germ line cell cycles. Furthermore, Remi uses functional genomic approaches to identify new DNA replication genes.

**Verena Jantsch**, **University of Vienna.**

We collaborate with Verena on meiotic recombination, particularly on the role of the LEM-3 nuclease.

**Peter Campbell, Sanger Centre, Hinxton UK.**

We collaborate on *C. elegans* next generation sequencing and bioinformatics.