

Personal details: **Alexandra Jones**

Appointments:

- Feb 2005 – present **Proteomics and mass spectrometry**
The Sainsbury Laboratory, Norwich research Park, Colney Lane, Norwich, NR4 7UH.
Line manager Prof. Jonathan Jones
- Oct 2004 – Feb 2005 **Targeting of EDS1/PAD4 resistance signalling complexes by bacterial effector proteins**
Imperial College Dept Biological Sciences, South Kensington, London SW72AZ
Principal Investigator Dr Bart Feys and Prof. John Mansfield
- Oct 2001 – Oct 2004 **'Comparative analysis of the defence proteome of Arabidopsis thaliana' (BBSRC grant no. P14635)**
Imperial College London, Wye Campus, Wye, Kent TN25 5AH
Principal Investigators Dr Murray Grant and Prof. John Mansfield
- Jan 1999- Oct 2001 **'The impact of transgenes for herbivore and virus resistance on the weediness of crop relatives' (DEFRA)**
Centre for Ecology and Hydrology, Winfrith Technology Centre, Dorchester, Dorset DT2 8DZ Principal Investigator Dr Alan Raybould
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Education and Qualifications

- June 1999 PhD: **Purification and Sequencing of a Thioglucosidase from the Cabbage Aphid, Brevicoryne brassicae L.**
Imperial College London, Wye Campus, University of London.,
Supervisor Dr John Rossiter
- June 1995, MSc: Applied Plant Science Imperial College London, Wye Campus, University of London,
Project 'The effects of aphid infestation on glucosinolate content in Brassica crops
- June 1993 BSc (Hons): Chemistry and Biochemistry Imperial College London, South Kensington Campus, University of London., Project 'Biosynthesis of Erythrina alkaloids in seedlings.'

Publications

- ◆ **Publications submitted or in press**
- ◆ Ntoukakis V, Mucyn TS, Gimenez-Ibanez S, Chapman H, Gutierrez JR, Balmuth AL, **Jones AME**, and Rathjen JP Host inhibition of a bacterial virulence effector triggers immunity to infection. Submitted to Science Dec 2008 currently under review
- ◆ Bush MS, Hutchins AP, **Jones AME**, Naldrett MJ, Jarmolowski A, Browning K, Lloyd CW and Doonan JH (2009) selective recruitment of proteins to 5' cap complexes during the growth cycle in Arabidopsis. Plant J. in press
- ◆ Haas BJ, Sophien Kamoun S...**Jones AME** (one of 90 authors)... Nusbaum C Genome sequence and comparative analysis of the Irish potato famine pathogen Phytophthora infestans Submitted to Nature Jan 2009.
- ◆ **Accepted publications total 21, 6 first author, 1 last author,**
- ◆ **Jones AME**, McLean D, Studholme DJ, Serna-Sanz A, Andreasson E, Peck SC Phosphoproteomic analysis of nuclei-enriched fractions from Arabidopsis thaliana (2009) J Proteomics in press
- ◆ Huang L., **Jones AME**, Searle I, Patel K, Vogler H, Hubner NC, Baulcombe DC 2009 An atypical RNA polymerase involved in RNA silencing and heterochromatin formation shares small subunits with RNA polymerase II. Nature Structural & Molecular Biology Jan;16(1):91-3. Epub 2008 Dec 14 PMID: 19079263
- ◆ Whiteman SA, Serazetdinova L, **Jones AME**, Sanders D, Rathjen J, Peck SC and Maathuis FMJ (2008) Identification of novel proteins and phosphorylation sites in the vacuolar membrane of Arabidopsis thaliana. Proteomics Sep;8(17):3536-47. PMID: 18686298
- ◆ Traka M, Gasper AV, Melchini A, Bacon JR, Needs PW, Frost V, Chantry A., **Jones AME**, Ortori

CA, Barrett DA, Ball RY, Mills RD & Mithen RF 2008 Broccoli Consumption Interacts with GSTM1 to Perturb Oncogenic Signalling Pathways in the Prostate PLOS One Jul 2;3(7):e2568. PMID: 18596959

◆ MacLean D, Burrell MA, Studholme DJ and **Jones AME** 2008 PhosCalc: A tool for evaluating the sites of peptide phosphorylation from Mass Spectrometer data. BMC Research Notes 2008, 1:30. PMID: 18710483

◆ De Lucia F, Crevillen P, **Jones AME**, Greb T and Dean C 2008 Dynamic association and distinct Polycomb complex composition define different FLC epigenetic states PNAS Nov 4;105(44):16831-6. Epub 2008 Oct 14 PubMed 18854416

◆ Kaffarnik FA, **Jones AM**, Rathjen JP, Peck SC 2008 Effector proteins of the bacterial pathogen *Pseudomonas syringae* alter the extracellular proteome of the host plant, *Arabidopsis thaliana*. Mol Cell Proteomics. 2008 .

◆ Romero-Puertas M.C., Laxa M., Mattè A., Zaninotto F., Finkemeier I., **Jones A.M.E**, Perazzolli M., Vandelle E., Dietz K.J, Delledonne M. (2007) 'S-nitrosylation of peroxiredoxin II E promotes peroxynitrite-mediated tyrosine nitration.' Plant Cell

◆ Heese A., Hann D.R., Gimenez-Ibanez S., **Jones A.**, He K., Jia Li J., Schroeder J.I., Peck S.C., Rathjen J.P., (2007) The receptor-like kinase SERK3/BAK1 is a central regulator of innate immunity in plants PNAS 104(29):12217-22

◆ Nühse TS., Bottrill AR, **Jones AME**, Peck SC (2007) Quantitative Phosphoproteomic Analysis of Plasma Membrane Proteins Reveals Regulatory Mechanisms of Plant Innate Immune Responses Plant Journal, 51(5):931-40

◆ Maor R., **Jones A.**, Nühse T.S., Studholme D.J., Peck S.C. and Shirasu K. (2007) MudPIT analysis of ubiquitinated proteins in plants. Molecular & Cellular Proteomics; 6(4):601-10

◆ **Jones A.M.E.**, Mansfield J. and Grant M. (2007) Considerations on post-translational modification and protein targeting in the *Arabidopsis* defence proteome. Plant Signaling and Behavior; 2(3), pp tbc [Addendum]

◆ **Jones A.M.E**, Thomas V, Bennett M.H, Mansfield J & Grant M (2006) Modification of host proteins during *Arabidopsis* defence response occurs prior to significant transcriptional change. Plant Physiol; 142, 1603-20

◆ **Jones A.M.E.**, Bennett M.H., Mansfield J.W. and Grant M. (2006) Analysis of the defence phosphoproteome of *Arabidopsis thaliana* using differential mass tagging. Proteomics; 6 (14) 4155-4165

◆ Herr A.J., Molnar A., **Jones A.** and Baulcombe D.C. (2006) Defective RNA processing enhances RNA silencing and influences flowering of *Arabidopsis*. PNAS 103 (41) 14997-15001

◆ **Jones A.M.E.**, Thomas V., Truman W., Lilley K., Mansfield J., Grant M. (2004) 'Specific changes in the *Arabidopsis* proteome in response to bacterial challenge: differentiating basal and R-gene mediated resistance.' Phytochemistry, 65, 1805-1816.

◆ Bridges M., **Jones A.M.E.**, Bones A.M., Hodgson C., Cole R., Bartlett E., Wallsgrove R., Karapapa V., Rossiter J.T. (2002) Spatial organisation of the glucosinolate-myrosinase system in *Brassica* specialist aphids is similar to that of the host plant. Proceedings of the Royal Society London B, 269, 187-191

◆ **Jones A.M.E.**, Bridges M., Bones A.M., Cole R., Rossiter J.T. (2001) Purification and characterisation of a non-plant myrosinase from the cabbage aphid *Brevicoryne brassicae* (L.). Insect Biochemistry & Molecular Biology, 31, 1-5.

◆ **Jones A.M.E.**, Winge P., Bones A.M., Cole R., Rossiter J.T. (2001) Characterization and Evolution of a Myrosinase from the Cabbage Aphid *Brevicoryne brassicae*. Insect Biochem. & Mol. Biol., 32, 275-284

◆ Lowe A., **Jones A.E.**, Raybould A.F., Trick M., Edwards K. (2001) Transferability of a new set of microsatellite primers amongst *Brassica* species and insights into their genomic relationships. Molecular Ecology Notes 2, 7-11

◆ Davenport I.J., Wilkinson M.J., Mason D.C., Charters Y.M., **Jones A.E.**, Allainguillaume J., Butler H.T., Raybould A.F. (2000) Quantifying gene movement from oilseed rape to its wild relatives using remote sensing. International Journal of Remote Sensing, 21, 3567-3573.

◆ Wilkinson M.J., Davenport I.J., Charters Y.M., **Jones A.E.**, Allainguillaume J., Butler H.T., Mason

D.C., Raybould A.F. (2000) A direct regional scale estimate of transgene movement from genetically modified oilseed rape to its wild progenitors. *Molecular Ecology*, 9, 983-991.

Patent Number 0020331.5 Imperial College Innovations 2000 **Jones A.M.E.**, Bones A.M., Rossiter J.T.

Book chapters

Raybould A.F., **Jones A.E.**, Alexander M., Pallett D., Thurston M.I., Cooper M.J., Gray A.J. (2000) The potential for Ecological Release following the introgression of virus-resistance transgenes into neutral populations of wild Brassica species In *The biosafety of genetically modified organisms, 6th International Symposium* (Ed, Fairbairn C., McHughen A.) University Extension Press, University of Saskatchewan, Saskatoon, Canada, pp. 105-111

Raybould A.F., Alexander M.J., Mitchell E., Thurston M.I., Pallett D.W., Hunter P., Walsh J.A., Edwards M.L., **Jones A.M.E.**, Moyes C.L., Gray A.J., Cooper J.I. (2002) The ecology of turnip mosaic virus in populations of wild *Brassica* species. In *Genes in the environment: the 15th Special Symposium ...* / ed. by R.S. Hails, J.E. Beringer & H.C.J. Godfray. Blackwell Publishing, US pp. 226-244

Rossiter J.T., **Jones A.M.E.**, Bones A.M. (2003) A novel myrosinase system. In *Integrative Phytochemistry: from Ethnobotany to Molecular Ecology*, 37. *Recent Advances in Phytochemistry*. Edited By John Romeo, 0-080-44277-3, Year: 2003, EUR 181, USD 181.