

# ASSOCIATION OF APPLIED BIOLOGISTS

*President: Professor Trevor J Hocking BSc, PhD, FSB*



**Organised in collaboration with the  
Society for General Microbiology**

**A 3 day conference**

**in Dublin, Ireland  
on 28-30 March 2012**

**PROGRAMME,  
DELEGATE LIST &  
ABSTRACTS**

# **Advances in Plant Virology**

Association of Applied Biologists  
Warwick Enterprise Park  
Wellesbourne, Warwick  
CV35 9EF

Registered Charity No. 275655

Tel: +44 (0)2476 575045

Fax: +44 (0)1789 470234

<http://www.aab.org.uk>

[Claire@aab.org.uk](mailto:Claire@aab.org.uk)

# Advances in Plant Virology

## Organised in collaboration with the Society for General Microbiology

to be held in Ireland at The Convention Centre, Dublin (Wed)  
and the Pearse Hotel (Thur/Fri)

### WEDNESDAY 28 MARCH 2012 - THE CONVENTION CENTRE

- 12.30-14.00      **REGISTRATION**
- 14.00-14.40      *Invited Speaker*  
**Plant and aphid partners of poleroviruses: role in virus transmission by aphids?**  
BAPTISTE MONSION, SYLVAIN BOISSINOT, MONIQUE ERDINGER, CAREN RODRIGUEZ, CATHERINE REINBOLD, CLÉMENCE HIPPER and VÉRONIQUE BRAULT (INRA Colmar, France)
- 14.40-14.55      **Permanent genome modifications in plant cells by transient viral vectors**  
IRA MARTON, ADI ZIPIN ROTMAN, NOAM DE COSTA, ARIK HONIG, ELENA MARHEVKA, AYELET OMID, AMIR ZUKER (Danziger Innovations Ltd., Mishmar Hashiva Village, Israel), TZVI TZFIRA (Department of Life Sciences, Ben-Gurion University of the Negev, Israel) and ALEXANDER VAINSTEIN (Institute of Plant Sciences and Genetics in Agriculture, The Robert H. Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem, Israel)
- 14.55-15.10      **Nucleotide bias of DCL and AGO in plant anti-virus gene silencing**  
HUI WANG (NERC/Centre for Ecology and Hydrology, Wallingford, Oxfordshire UK)
- 15.10-15.25      **An infectious genomic clone of Beet curly top Iran virus**  
REIHANEH SOLEIMANI, SLAVICA MATIC, MANUELA VECCHIATI (Istituto di Virologia Vegetale, CNR, Strada delle Cacce Torino, Italy), AKBAR BEHJATNIA, KERAMAT IZADPANAHAH (Plant Virology Research Center, College of Agriculture, Shiraz University, Iran) and GIAN PAOLO ACCOTTO (Istituto di Virologia Vegetale, CNR, Strada delle Cacce Torino, Italy)
- 15.25-16.00      **REFRESHMENTS**
- 16.00-16.40      *Invited Speaker*  
**The effects of cucumber mosaic virus and its silencing suppressor, the 2b protein, on plant-aphid interactions**  
JOHN CARR (University of Cambridge, UK)

- 16.40-16.55 **The single dominant resistance gene Tsw is triggered by a functional RNA silencing suppressor protein of the Tomato Spotted Wilt Virus - STUDENT COMPETITION**  
DRYAS DE RONDE, PATRICK BUTTERBACH, DICK LOHUIS, MARCIO HEDIL, JAN W. M. VAN LENT and RICHARD KORMELINK (Laboratory of Virology, Wageningen University, Wageningen, the Netherlands)
- 16.55-17.10 **Functional studies of the Bipartite Begomovirus CP promoter**  
GARY SUNTER and HO YONG CHUNG (Department of Biology, University of Texas, San Antonio, USA)
- 17.10-17.25 **A new method to obtain the whole genome sequence of plant viruses by Next-Generation Sequencing - STUDENT COMPETITION**  
ROSINEIDE SOUZA RICHARDS, ADRIAN FOX, IAN ADAMS, RACHEL GLOVER (The Food and Environment Research Agency, Sand Hutton, York, UK), MATT DICKINSON (Plant and Crop Sciences Division, University of Nottingham, Sutton Bonington Campus, Leicestershire, UK) and NEIL BOONHAM (The Food and Environment Research Agency, Sand Hutton, York, UK),
- 17.30-19.00 **POSTER SESSION IN THE LIFFEY EXHIBITION AREA**
- 19.00 **END OF DAY**

#### **THURSDAY 29 MARCH 2012 - THE PEARSE HOTEL**

- 8.30-9.00 **REGISTRATION**
- 9.00-9.40 *Invited Speaker*  
**RNA silencing in the plant virus interaction**  
JOZSEF BURGYAN (ABC, Hungary)
- 9.40-10.00 **The Beet *necrotic yellow vein virus* (BNYVV) pathogenicity factor P25 physically interacts and co-localizes with a putative Auxin-inducible transcription factor from sugar beet**  
HEIKE THEIL (Institute of Sugar Beet Research, Department of Phytopathology, Göttingen, Germany), DAVID GILMER (Institut de Biologie Moléculaire des Plantes, l'Université de Strasbourg, Strasbourg, France) and MARK VARRELMANN (Institute of Sugar Beet Research, Department of Phytopathology, Göttingen, Germany)
- 10.00-10.20 **Investigations on the *Tobacco necrosis virus* strain D p60 replicase protein**  
LIANG FANG and ROBERT H. A. COUTTS (Imperial College, SAF Building, London, UK)
- 10.20-10.40 **Microarrays for the routine diagnosis of plant viruses**  
IAN ADAMS, EMMA NEALE-EDWARDS, BEN BARRA and NEIL BOONHAM (The Food and Environment Research Agency, Sand Hutton, York, UK)
- 10.40-11.00 **Lettuce big-vein associated virus is the causal agent of a syndrome of necrotic rings and spots in lettuce**  
MARTIN VERBEEK, ANNETTE DULLEMANS, PETRA VAN BEKKUM and RENÉ VAN DER VLUGT (Plant Research International, part of Wageningen UR (University and Research Centre), AB Wageningen, The Netherlands)

- 11.00-11.25      **REFRESHMENTS**
- 11.25-11.40      **New technologies for plant biosecurity: bead arrays for the multiplexed detection and identification of begomoviruses and their whitefly vectors - STUDENT COMPETITION**  
SHARON VAN BRUNSCHOT (CRC for National Plant Biosecurity, Bruce, ACT, Australia), JAN BERGERVOET, MARJANNE DE WEERDT (Plant Research International, part of Wageningen UR (University and Research Centre), AB Wageningen, The Netherlands) ANDRE DRENTH, ANDREW GEERING (Queensland Alliance for Agriculture and Food Innovation, Australia), DANIEL PAGENDAM (CSIRO Mathematics, Informatics and Statistics, QLD, Australia) and RENÉ VAN DER VLUGT (Plant Research International, part of Wageningen UR (University and Research Centre), AB Wageningen, The Netherlands)
- 11.40-11.55      **Occurrence of resistance-breaking strains of Beet necrotic yellow vein virus in sugar beet in Northern Europe and the identification of a new variant of the viral pathogenicity factor - STUDENT COMPETITION**  
KATHRIN BORNEMANN (Institute of Sugar Beet Research, Department of Phytopathology, Holtenser, Germany), BRAM HANSE (IRS, the Netherlands), MARK VARRELMANN (Institute of Sugar Beet Research, Department of Phytopathology, Holtenser, Germany) and MARK STEVENS (Broom's Barn Research Centre, Department of Applied Crop Science, Suffolk, UK)
- 11.55-12.10      **Molecular characterization of plant viruses infecting potato and vegetables in Iraq - STUDENT COMPETITION**  
NAWRES SADEQ, SUSAN SEAL and M. N. MARUTHI (Natural Resources Institute, University of Greenwich, UK)
- 12.10-12.25      **Production of human Gastric Lipase in transgenic plants using a viral expression vector and a viral suppressor of gene silencing - STUDENT COMPETITION**  
HADRIEN PEYRET, TILLY ELDRIDGE, POOJA SAXENA, EVA THUENEMANN (Department of Biological Chemistry, John Innes Centre, Norwich, UK) MARIA VARDAKOU (The Model Gut, Institute of Food Research, Norwich) and GEORGE LOMONOSSOFF (Department of Biological Chemistry, John Innes Centre, Norwich, UK)
- 12.25-12.40      **The minor capsid protein of *Cucurbit aphid borne yellows virus*: Formation, incorporation into virions and role in virus movement - STUDENT COMPETITION**  
SYLVAINÉ BOISSINOT, MONIQUE ERDINGER, BAPTISTE MONSION, CAREN RODRIGUEZ, CATHERINE REINBOLD and VÉRONIQUE BRAULT (UMR INRA-UDS Virus-Vection Group, Colmar, France)
- 12.40-12.55      **Unravelling the tangled processes of RNA Replication and Encapsidation in Cowpea mosaic virus - STUDENT COMPETITION**  
POOJA SAXENA, KEITH SAUNDERS and GEORGE LOMONOSSOFF (Department of Biological Chemistry, John Innes Centre, Norwich, UK)
- 12.55-14.00      **LUNCH**
- 14.00-14.30      **Mechanisms of induction and suppression of RNA-based immunity by plant and animal RNA viruses - MAIN SGM SYMPOSIUM @ CONVENTION CENTRE**  
SHOU WEI DING (University of California, Riverside, USA)

14.45-15.25  
15 MINS TO  
WALK BACK TO  
PEARSE HOTEL

*Invited Speaker*

**Self-assembled tobamovirus-derived scaffolds for functional hybrid materials and nano-components**

CHRISTINA WEGE, F.J. EBER (Institute of Biology, Department of Molecular Biology and Plant Virology, University of Stuttgart, Germany), C. AZUCENA, H. GLIEMANN (Karlsruhe Institute of Technology (KIT), Eggenstein-Leopoldshafen, Germany), A. MUELLER (Institute of Biology, Department of Molecular Biology and Plant Virology, University of Stuttgart, Germany), A.M. BITTNER (CIC NanoGUNE, Donostia-San Sebastian, Spain), F.C. GEIGER (Max-Planck-Institute of Intelligent Systems, Stuttgart, Germany), S. DEGENHARD, A. KADRI (Institute of Biology, Dpt. of Molecular Biology and Plant Virology, University of Stuttgart, Germany), A. PETERSHANS (Karlsruhe Institute of Technology (KIT), Eggenstein-Leopoldshafen, Germany), S. BALCI (Institute of Biology, Department of Molecular Biology and Plant Virology, University of Stuttgart, Germany), Z. WU (Institute of Micro- and Nanomaterials, University of Ulm, Germany), R.C. HOFFMANN (Department of Chemistry, Technische Universität Darmstadt, Germany), M. GUNKEL (BioQuant, University of Heidelberg, Heidelberg, Germany), S. WALHEIM, T. SCHIMMEL (Karlsruhe Institute of Technology (KIT), Eggenstein-Leopoldshafen, Germany), J.P. SPATZ (Max-Planck-Institute of Intelligent Systems, Stuttgart, Germany), C. KRILL III (Institute of Micro- and Nanomaterials, University of Ulm, Ulm, Germany), J.J. SCHNEIDER (Department of Chemistry, Technische Universität Darmstadt, Germany), C. CREMER (BioQuant, University of Heidelberg, Heidelberg, Germany), J. BILL, N. AMSHAROV (Institute of Materials Sciences, University of Stuttgart, Stuttgart, Germany), S. EIBEN and H. JESKE (Institute of Biology, Department of Molecular Biology and Plant Virology, University of Stuttgart, Germany)

15.25-15.40

**Formation of virus particles is required, but not sufficient, for efficient polerovirus long distance movement - STUDENT COMPETITION**

CLEMENCE HIPPER, BAPTISTE MONSION (UMR INRA-UDS Virus-Vection Group, Colmar, France), VÉRONIQUE ZIEGLER-GRAFF (Institut de Biologie Moléculaire des Plantes, Strasbourg, France), FRÉDÉRIC REVERS (UMR BFP INRA-UB2, Villenave d'Ornon, France) and VÉRONIQUE BRAULT (UMR INRA-UDS Virus-Vection Group, Colmar, France)

15.40-16.10

**REFRESHMENTS**

16.10-16.25

**Multiplex RT-PCR assays for the simultaneous detection of both RNA and DNA viruses infecting cassava and the common occurrence of mixed infections by two cassava brown streak viruses in East Africa - STUDENT COMPETITION**

M.M. ABARSHI, I.U. MOHAMMED (Natural Resources Institute, University of Greenwich, Kent, UK), J.P. LEGG (International Institute of Tropical Agriculture (IITA), Dares Salaam, Tanzania), P. LAVA KUMAR (IITA, Oyo Road, Ibadan, Nigeria), and M.N. MARUTHI (Natural Resources Institute, University of Greenwich, Kent, UK)

16.25-16.40

**Current status of cucurbit viruses in Venezuela and characterization of Venezuelan isolates of Zucchini yellow mosaic - STUDENT COMPETITION**

G. ROMAY, (INRA, Unité de Pathologie Végétale Montfavet, France/Fundación Instituto de Estudios Avanzados. Caracas, Venezuela), F. GERAUD-POUEY, D.T. CHIRINOS, (La Universidad del Zulia, Unidad Técnica Fitosanitaria, Venezuela), H. LECOQ, and C. DESBIEZ (INRA, Unité de Pathologie Végétale Montfavet, France)

- 16.40-16.55      **Mechanisms of resistance to Cassava Brown Streak Disease in cassava varieties - STUDENT COMPETITION**  
I. U. MOHAMMED, M. M. ABARSHI, R. J. HILLOCKS, and M. N. MARUTHI  
 (Natural Resources Institute, University of Greenwich, Chatham Maritime, Kent, UK)
- 16.55-17.10      **The biodiversity and epidemiology of Potato Virus Y in Scotland - STUDENT COMPETITION**  
KIM DAVIE, CHRISTOPHE LACOMME (Virology & Zoology Section, SASA, Edinburgh, UK) and MATT DICKINSON (University of Nottingham, Plant Sciences, Sutton Bonington, UK)
- 17.10-17.25      **Mineral oil for PVY control**  
MOUNIA KHELIFA, SOLENE GARSON, MARIA MARTOUB, CHRISTINE RUSTERUCCI, PHILIPPE GIORDANENGO and ARNAUD AMELINE (Laboratoire de Bioécologie des Insectes Phytophages et Entomophages. Université de Picardie Jules Verne, Amiens, France)
- 17.25-17.40      **Construction of a phloem cDNA library and screen for polerovirus partners involved in long distance movement**  
CAREN RODRIGUEZ, SYLVAIN BOISSINOT (UMR INRA-UDS Virus-Vecton Group, Colmar, France), SOPHIE CHAPUIS, VERONIQUE ZIEGLER-GRAFF (Institut de Biologie Moléculaire des Plantes, Virologie Végétale, Strasbourg, France), FREDERIC REVERS (UMR BFP INRA-UB2, Centre de Bordeaux, Cedex, France) and VERONIQUE BRAULT (UMR INRA-UDS Virus-Vecton Group, Colmar, France)
- 17.40-18.00      **Sources of PVY infections in potato fields**  
RENÉ VAN DER VLUGT, MARTIN VERBEEK, PAUL PIRON, HENRY VAN RAAIJ, PETRA VAN BEKKUM (Plant Research International, Wageningen, the Netherlands), KEES BUS, CORINA POTTER and ROMKE WUSTMAN (Applied Plant Research (PPO-Lelystad), the Netherlands)
- 19.00              **CONFERENCE DINNER**

**FRIDAY 30 MARCH 2012 - THE PEARSE HOTEL**

- 8.30-9.00        **REGISTRATION**
- 9.00-9.20        **Generation of a selectable PepMV strain for high-throughput screens in tomato**  
RAQUEL SEMPERE (Bioprodin SL, Edificio CEEIM, Campus de Espinardo s/n, Murcia, Spain) and MIGUEL A. ARANDA (Centro de Edafología y Biología Aplicada del Segura (CEBAS-CSIC), Departamento de Biología del Estrés y Patología Vegetal, Murcia, Spain)
- 9.20-9.40        **Real-time multiplex RT-PCR for simultaneous detection of the main five grapevine viruses**  
 EDSON BERTOLINI (Centro de Protección Vegetal y Biotecnología, Instituto Valenciano de Investigaciones Agrarias (IVIA), Valencia, Spain), THIERRY WETZEL (RLP Agroscience, AIPlanta – Institute for Plant Research, Neustadt an der Weinstrasse, Germany), IRENE LÓPEZ-FABUEL (Centro de Protección Vegetal y Biotecnología, Instituto V Valenciano de Investigaciones Agrarias (IVIA), Valencia, Spain), ALEXANDRA BASSLER (RLP Agroscience, AIPlanta –

Institute for Plant Research, Neustadt an der Weinstrasse, Germany), EDUARDO VIDAL (Centro de Protección Vegetal y Biotecnología, Instituto V Valenciano de Investigaciones Agrarias (IVIA), Valencia, Spain), LUIS B. TORRES (Centro de Protección Vegetal y Biotecnología, Instituto Valenciano de Investigaciones Agrarias (IVIA), Valencia, Spain), (RLP Agroscience, AIPlanta – Institute for Plant Research, Neustadt an der Weinstrasse, Germany), ALBERTO YUSTE (Universidad Politécnica de Valencia, Valencia, Spain) and ANTONIO OLMOS (Centro de Protección Vegetal y Biotecnología, Instituto Valenciano de Investigaciones Agrarias (IVIA), Valencia, Spain)

9.40-10.00

**Is it possible to be “better” than wild type TYLCV?**

CICA URBINO, ANNA ANTOLIK, NABILA BOUAZZA, MARTINE GRANIER, STÉPHANE BLANC and MICHEL PETERSCHMITT (CIRAD-INRA, UMR BGPI BAILLARGUET TA A-54/K Campus International de Baillarguet, Montpellier, France)

10.00-10.20

**Virus resistance mediated by eIF4E in melon**

VERÓNICA TRUNIGER, MANUEL MIRAS MARÍN, ANA M. RODRÍGUEZ-HERNÁNDEZ and MIGUEL A. ARANDA (Centro de Edafología y Biología Aplicada del Segura (CEBAS-CSIC), Departamento de Biología del Estrés y Patología Vegetal, Espinardo, Murcia, Spain)

10.20-10.50

**REFRESHMENTS**

10.50-11.10

PRESENTATIONS TO THE WINNERS OF THE ROGER HULL AND BRYAN HARRISON STUDENT COMPETITIONS

11.10-11.30

**Timing and efficiency of transmission of PVY and PVA in England**

ADRIAN FOX, LARISSA COLLINS, SAMAMNTHA BENNET, MARK DALY, DAVID FLEMING, MICHELLE POWELL and PHIL NORTHING (Food and Environment Research Agency, Sand Hutton, York, UK)

11.30-11.50

**Transmission of Potato spindle tuber viroid from ornamentals to tomato and potato – epidemiology, risk studies and inactivation methods**

KRIS DE JONGHE, S. MORIO, M. MAES (Instituut voor Landbouw- en Visserijonderzoek, Eenheid Plant, Merelbeke, Belgium), I. HANSSEN, N. ORTEGA-PARRA (Scientia Terrae vzw, Fortsesteenweg 30 A, B-2860 St.-Katelijne-Waver), T. OLIVIER, J. GOVERS and S. STEYER (Centre Wallon de Recherches Agronomiques, Département Science du Vivant, Gembloux, Belgium)

11.50-12.10

**Cowpea mosaic virus (CPMV) empty virus-like particles (eVLPs): factors controlling assembly and permeability**

YULIA A. MESHCHERIAKOVA, A.A.A. ALJABALI, and GEORGE P. LOMONOSSOFF (Department of Biological Chemistry, John Innes Centre, Norwich, UK)

12.10-12.30

Meeting roundup and goodbye remarks

## POSTERS

### **Infection and recovery rates between a mild and a virulent isolate of arabis mosaic nepovirus in *nicotiana benthamiana***

LAURENCE DUPUIS (RLP Agroscience, AIPianta – Institute for Plant Research, Breitenweg, Neustadt an der Weinstrasse, Germany/CNRS-IBMP, Strasbourg, Cedex, Germany), PATRICE DUNOYER, (CNRS-IBMP, Strasbourg, Cedex, Germany), ALEXANDRA BASSLER (RLP Agroscience, AIPianta – Institute for Plant Research, Breitenweg, Neustadt an der Weinstrasse, Germany), MARIO KELLER (CNRS-IBMP, Strasbourg, Cedex, Germany), PATRICE DUNOYER (CNRS-IBMP, Strasbourg, Cedex, Germany), RUDIGER HELL (Heidelberg Institute for Plant Science, Heidelberg, Germany) and THIERRY WETZEL (RLP Agroscience, AIPianta – Institute for Plant Research, Breitenweg, Neustadt an der Weinstrasse, Germany)

### **Occurrence of pospiviroids in potato, tomato and some ornamental plants in Belgium**

THIBAUT OLIVIER, DEMONTY ELISABETH and STEYER STEPHAN (Walloon Agricultural Research Centre, Belgium)

### **Two generic PCR primer sets for the detection of members of the genus *Torradovirus***

MARTIN VERBEEK (Plant Research International, part of Wageningen UR (University and Research Centre), AB Wageningen, the Netherlands), JOE TANG (Plant Health and Environment Laboratory, Investigations and Diagnostic Centre, MAF Biosecurity New Zealand, Auckland, New Zealand) and LISA I. WARD (Plant Research International, part of Wageningen UR (University and Research Centre), AB Wageningen, the Netherlands)

### **How does broad-spectrum resistance to *Turnip mosaic virus* work in *Brassica rapa*? - STUDENT COMPETITION**

CHARLOTTE NELLIST, CAROL E. JENNER, GUY C. BARKER (School of Life Sciences, University of Warwick, UK), WILLIAM H. BRIGGS (Syngenta Seeds, Enkhuizen, the Netherlands) and JOHN A. WALSH (School of Life Sciences, University of Warwick, UK)

### **Developing methods to eliminate Cassava brown streak viruses from infected cassava varieties - STUDENT COMPETITION**

I. U. MOHAMMED, M. M. ABARSHI, R. J. HILLOCKS and M. N. MARUTHI (Natural Resources Institute, University of Greenwich, Chatham Maritime, Kent ME4 4TB, United Kingdom)

### **Functional analysis of $\beta$ -glucanase gene in potato - PVY interaction**

DAVID DOBNIK, SPELA BAEBLER, POLONA KOGOVSĚK, MARUŠA POMPE NOVAK (National institute of biology, Ljubljana, Slovenia), GABRIELA PANTER (National institute of chemistry, Ljubljana, Slovenia), ANDREJ BLEJEC, KRISTINA GRUDEN and JANA ŽEL (National institute of biology, Ljubljana, Slovenia)

### **European nanoviruses: Identification of three new species and new DNA components**

H. ZIEBELL (Julius Kühn-Institut, Federal Research Centre for Cultivated Plants (JKI), Institute of Epidemiology and Pathogen Diagnostics, Braunschweig, Germany), I. GRIGORAS, T. TIMCHENKO, B. GRONENBORN (Institut des Sciences du Végétal, CNRS, France) and H.J. VETTEN (JKI), Institute of Epidemiology and Pathogen Diagnostics, Braunschweig, Germany).



# NOTES

# NOTES



**ASSOCIATION OF APPLIED BIOLOGISTS**  
**President: Professor Trevor J Hocking BSc, PhD, FSB**

# Advances in Plant Virology

**Organised in collaboration with the  
Society for General Microbiology**

**to be held in Ireland at The Convention Centre, Dublin (Wed)  
and the Pearse Hotel (Thur/Fri)**

**on 28-30 March 2012**

SURNAME: ..... INITIALS: .....

TITLE (Prof/Dr/Mr/Mrs/Ms or other): .....

PREFERRED NAME FOR BADGING: .....

STATUS (Delete as appropriate): AAB/SGM Member/Student Member/Retired Member  
Non-Member\*/Student Non-Member\*

MAILING ADDRESS: .....

.....

..... POST CODE: .....

Tel No: .....

Fax No: .....

E-mail: .....

**NOTES 1. STUDENTS.** It is the Association's policy to grant reduced registration fees to students. This provision is subject to space being available and booking forms must be accompanied by a signed statement from the student's supervisor attesting that he/she is a full-time student. If students would like to apply for an AAB Student Travel Grant FOR THIS CONFERENCE, please send your request in writing to the AAB Office. Forms are available on the AAB Web Page: <http://www.aab.org.uk>  
2. Conferences of the Association are private but visitors are most welcome. The publishing of reports of papers given at these conferences should only be done with the permission of the organiser and the authors of the papers concerned, who may require to see proofs before this permission is given.  
3. The Association would like to send you details of relevant conferences in the future. Please tick box if you do not want to receive these details   
4. Please note that photographs are sometimes taken at AAB conferences which we publish in our Newsletter to members.

\*AAB full membership for 2012 is £55.00 and £20.00 for students.

For further details on membership contact the AAB Office