Monday 26th July

8.30am-9.15am Registration

9.15am-9.30am Opening: Prof. Ben Paechter, Edinburgh Napier University

9.30-11am: Theoretical AIS 1

On the Benefits of Aging and the Importance of Details
Thomas Jansen and Christine Zarges
Clonal Selection from First Principles
Chris McEwan and Emma Hart.
Density Preservation and Vector Quantization in Immune-Inspired Algorithms
Alisson G. Azzolini, Ricardo P. V. Violato, and Fernando J. Von Zuben

11am-11.30am Coffee

11.30am-1pm : Theoretical AIS 2

Classifying in the Presence of Uncertainty: A DCA Perspective
Robert Oates, Graham Kendall and Jonathan Garibaldi
Insights into the Antigen Sampling Component of the Dendritic Cell Algorithm
Chris Musselle
FDCM: A Fuzzy Dendritic Cell Method
Zeineb Chelly and Zied Elouedi

1pm-2pm Lunch (Chapel)

2pm-4pm Tutorial 1

Prof Mike Holcombe, University of Sheffield
Agent Based Modelling: From Cells to Tissue

4pm-4.30 pm Coffee

4.30pm-6pm : Theoretical AIS 3

Immune Inspired Information Filtering in a High Dimensional Space.
Nikolaos Nanas, Stefanos Kodovas, Manolis Vavalis and Elias Houstis

Modular RADAR: An Immune System Inspired Search and Response Strategy for Distributed Systems
Soumya Banerjee and Melanie Moses
Danger Theory and Intrusion Detection: Possibilities and Limitations of the Analogy .
Mark Vella, Marc Roper and Sotirios Terzis

6pm Onwards: SICSA Reception and showcase of Scottish SEABIS Research

Tuesday 27th July

9am-11am Computational Modelling & Novel Paradigms

A Petri Net Model of Granulomatous Inflammation
Luca Albergante, Jon Timmis, Paul Andrews, Lynette Beattie and Paul M. Kaye
Defining a Simulation Strategy for Cancer Immunocompetence
Grazziela Figueredo and Uwe Aickelin
An Artificial Immune System Approach for Artificial Chemistries Based on Set Rewriting
Daniel Schreckling and Tobias Marktscheffel
Biomedical Article Classification using an Agent-Based Model of T-Cell Cross Regulation
Alaa Abi Haidar and Luis Rocha

11-11.30am Coffee

11.30am-1pm Tutorial 2

Dr Hugo Van Den Berg, University of Warwick
Mathematical Modelling for Immunology

1pm-2pm Lunch (Chapel)

2pm-3.30pm Keynote 1

Professor Derek Smith, University of Cambridge
The Evolution of Influenza Viruses

3.30pm-4pm Coffee

4pm-5pm : Applied AIS 1

Further Experimentation with Hybrid Immune Inspired Network Intrusion Detection
Robert Fanelli
Electronic Fraud Detection for Video-on-Demand System using Hybrid Immunology-Inspired Algorithms
Rentian Huang, Hissam Tawfik and Atulya Nagar

5.15-7.15pm Workshop on Qualitative Immune Modelling Languages

Wednesday 28th July

9am-10.30am Keynote 2

Dr Falko Dressler, University of Erlangen
Self-Organisation in Sensor Networks based on Biological Concepts

10.30am-11am Coffee

11am-1pm : PerAda Session 1

Converging Bio-Inspired Robotics and Socio-Inspired Agents for Multi-Dimensional Intelligent Transportation Systems
Jeremy Pitt, Yiannis Demiris and John Polak
On Homeostasis in Collective Robotic Systems.
Jon Timmis, and Andy Tyrrell
Can A Developmental AIS Provide Immunity to a Multi-cellular Robotics System?
Maizura Mokhtar and Yang Liu
Using virtual embryogenesis to structure controllers
Ronald Thenius, Michael Bodi, Thomas Schmickl and Karl Crailsheim

1pm-2pm Lunch (Chapel)

2pm-3.30pm PerAda Invited Speaker

Dr Serge Kernbach, University of Erlangen
Multicellular Self-Adaptation and Self-Development: new paradigm for collective adaptive systems?

3.30pm-4pm Coffee

4pm-6pm : PerAda Session 2

Towards self-aware PerAda systems
Emma Hart and Ben Paechter
Is Receptor Degeneracy Suitable for Automatic Response Decisions in Ad Hoc Networks?
Sven Schaust, Martin Drozda and Helena Szczerbicka
Biochemically-Inspired Emergent Computation
Lidia Yamamoto, Thomas Meyer
Nature-inspired adaptivity in communication and learning
Borbala Katalin Benko and Vilmos Simon
Symbiotic Cognitive Networks: A proposal
Tinku Rasheed, Emma Hart, Jim Bown and Ruth Falconer

Thursday 29th July

9am-11am : Applied Session 2

A Faster Clonal Selection Algorithm for Expensive Optimization Problems
Heder Bernardino, Helio Barbosa and Leonardo Fonseca

An Information Theoretic Approach for Clonal Selection Algorithms
Vincenzo Cutello, Giuseppe Nicosia, Mario Pavone and Giovanni Stracquadanio

Antibodies with Adaptive Radius as Prototypes of High-Dimensional Datasets
Ricardo P. V. Violato, Alisson G. Azzolini, and Fernando J. Von Zuben

GAIS: A Gaussian Artificial Immune System for Continuous Optimization
Pablo Castro and Fernando Jose Von Zuben

11am-11.30am Coffee

11.30am-1pm Tutorial 3

Dr Mark Neal, University of Aberystwyth
Working with Industry

1pm-2pm Lunch (Chapel)

2pm-4pm : Applied Session 3

An Immune Algorithm for Minimum Interference Channel Assignment in Multi-radio Wireless Mesh Networks
Su-Wei Tan

A Developmental and Immune-Inspired Dynamic Task Allocation Algorithm for Microprocessor Array Systems
Yang Liu, Jon Timmis, Omer Qadir, Gianluca Tempesti and Andy Tyrrell

An Immunological Algorithm for Doping Profile Optimization in Semiconductors Design
Giovanni Stracquadanio, Concetta Drago, Vittorio Romano and Giuseppe Nicosia

QML-AiNet: An Immune-inspired Network Approach to Qualitative Model Learning
Wei Pang and George M. Coghill

4pm ICARIS 2011 Announcement

CONFERENCE CLOSE & COFFEE