



International Complement Society



European Complement Network

Editorial Board

Claudia Kemper (Editor)
Zvi Fishelson
Peter Garred
Michael Holers
Tom Mollnes
Bo Nilsson
Matthew Pickering
Wenchao Song
Denise Tambourgi
Trent Woodruff

Dear members of the complement community,
Welcome to the first issue of the 'Focus on Complement' in 2014.

This 33rd issue of FoC contains:

- An invitation to the **XXV International Complement Workshop between September 14-18 2014 in Rio de Janeiro, Brazil.**
- Announcement of the **2014 Young Investigator Awards for Research in Complement** which will be awarded during the XXV ICW in Rio de Janeiro.
- The **News Flash** in this issue presents one publication that demonstrates the critical contribution of the MAC to the neurologic impairments observed after traumatic brain injury and a second publication that suggests the anti-C5 antibody Eculizumab as a powerful tool to support successful kidney transplantation by preventing Antiphospholipid Antibody Syndrome.
- **Complement research teams around the world.** In this issue, we are introducing the team members of **The Centre for Complement and Inflammation Research at Imperial College in London, UK**

If you would like to contribute with an article to a future issue or have suggestions for a subject theme, please contact Claudia Kemper or Zvi Fishelson;
Claudia.kemper@kcl.ac.uk, lifish@post.tau.ac.il

Thank you for your continuous sponsorship:



Quidel Corp.
Specialty Products
2981 Copper Road
Santa Clara, CA 95051, U.S.A.
Tel.: 408-616-4301
Fax : 408-616-4310
E-mail: custsvc.spg@quidel.com
Website: www.quidel.com



P.O. Box 30
5400 AA UDEN
The Netherlands

T +31 (0)413 251 335
F +31 (0)413 248 353
E info@hycultbiotech.com
W www.hycultbiotech.com



Complement
Technology, Inc.
4801 Troup Hwy, Suite 701
Tyler, Texas 75703
1-903-581-8284 (Phone)
1-903-581-0491 (Fax)
E-mail: contactCTI@aol.com
Website: www.ComplementTech.com

The XXVth International Complement Workshop

Dear Colleagues,

The XXV International Complement Workshop will take place in September 14-18, 2014, for the first time in a South American country. The venue of the Workshop is “Angra dos Reis Auditorium”, Windsor Atlantica Hotel, a five-star hotel located on the renowned Copacabana beach, Rio de Janeiro, Brazil.

The Workshop aims to serve as a platform for the discussion of results and promotion of collaboration networks. Submitted abstracts will be peer-reviewed and selected for either oral presentation or for the poster sessions.

We hope that, in addition to an exchange of excellent scientific ideas and concepts, you have time to visit the city of Rio de Janeiro, well known for its breathtaking scenery, surrounded by green rain forest, beautiful beaches and deep blue sea.

The regular registration package will include access to all sessions and exhibition hall, conference bag, scientific program and abstract books, ICS membership for 2014-2016, opening ceremony and reception, participation in the scientific sessions, coffee breaks, lunches at Windsor Atlantica Hotel, tour to the Sugar Loaf (located at the entry of the Guanabara Bay, a land mark of the city of Rio de Janeiro) and gala dinner.

We are certain that we will have an event of high scientific level in an environment of friendliness, one of the most important trademarks of the Brazilians.

Scientific Topics

Complement and Coagulation

Complement and Disease

Complement and Inflammation

Complement and the Nervous System

Complement Components: structure and function

Complement Diagnostics and Therapy

Complement Genetics and Deficiencies

Complement in Host-Pathogen Interaction

Complement-mediated inhibitors: Therapeutic intervention

Complement Receptors

Complement: all other Topics



The keynote speakers of the meeting are:

Victor Nussenzweig, PhD, MD

Hermann M. Biggs Professor of Preventive Medicine
New York University's Langone Medical Center

Ricardo Gazinelli, PHD

Professor of Immunology
Oswaldo Cruz Foundation, Brazil, and Massachusetts University, USA

Mauro Martins Teixeira, MD, PhD

Professor of Pharmacology and Immunology
Federal University of Minas Gerais, Brazil

With additional speakers selected from the submitted abstracts.



The deadline for **Early Registration is April 17, 2014** and for **Abstract Submission the deadline is May 5, 2014**.

Please note that the cost of the early registration fee is 575 Euro and hotel accommodations vary from 363 to 578 Reais/night including breakfast (1 Euro = ~3.5 Reais).

For your convenience and to expedite the communication process, the registration materials, including abstract and hotel reservation forms, are available on the web site. Information about Rio de Janeiro, travel to Brazil, hotel accommodations, etc. is also available on the web site. Updated information will be available through this site: <http://www.icwrio2014.com>



To encourage the participation of young scientists, postdocs and students the following Travel Awards will be available to offset a portion of the travel expenses to the Conference:

Young Investigator Awards for Research in Complement (based on nominations)

Trainee Awards (based on abstract and poster qualities)

For more information please visit the workshop's website.

We look forward to welcoming you in Rio de Janeiro for a scientifically stimulating and socially enjoyable meeting.

Warmest regards,

Local Organizing Committee

Denise V. Tambourgi, Butantan Institute, SP, Brazil (chair of the committee)

Jorge Kalil, Butantan Institute, SP, Brazil

Anete Grumach, Faculty of Medicine ABC, SP, Brazil

Wilmar Dias da Silva, Butantan Institute, SP, Brazil

Ângela Silva Barbosa, Butantan Institute, SP, Brazil

Carla Cristina Squaiella Baptista, Butantan Institute, SP, Brazil

Giselle Pidde Queiroz, Butantan Institute, SP, Brazil

Iara Messias Reason, Federal University of Paraná, PR, Brazil

Program Committee

The Program Committee consists primarily of ICS Board members that will select abstracts for presentation, travel awards, and keynote speakers. The Chair of the Program Committee is the current President of the ICS, Dr. Zvi Fishelson, Tel Aviv University, Tel Aviv.

Other members are:

Andrea Joan Tenner, President Elected, University of California, Irvine, USA

B. Paul Morgan, Past President, University of Wales, UK

Claudia Kemper, Secretary, King's College London, UK

Wenchao Song, Treasurer, University of Pennsylvania, USA

Bo Nilsson, Uppsala University, Sweden

Denise Tambourgi, Butantan Institute, Brazil

Matthew C. Pickering, Imperial College, Hammersmith, UK

Michael Holers, University of Colorado, USA

Peter Garred, University of Copenhagen, Denmark

Santiago Rodriguez de Córdoba, Centro de Investigaciones Biológicas, Spain

Tom Eirik Mollnes, Oslo University, Norway

Trent M. Woodruff, University of Queensland, Australia



YOUNG INVESTIGATOR AWARD

It is our pleasure to announce two **Young Investigator Awards for Research in Complement** that will be awarded at the XXV International Complement Workshop 2014 in order to recognize outstanding work by younger colleagues in the field. The awards will be sponsored one by the ICS and one by the Lambris family.

Purpose

The *Young Investigator Award* acknowledges excellence in complement-focused research by a scientist who is in the early stages of an independent career, and provides support to stimulate further research of the highest scientific level. The awards will be presented by the President of the ICS at the XXV Complement Workshop in Brazil.

Eligibility criteria

In order to meet the criteria for the *Young Investigator Award*, nominees should have held a Faculty position for no more than 10 years, though special consideration will be given to those who have taken career breaks. Appropriate research by the candidate may be based on laboratory investigations, clinical or epidemiological studies, experimental animal studies, or a combination thereof, in the field of complement. Nominees must be employed in a University or hospital. Nominations may be suggested and submitted by any member of the ICS; self-applications are not accepted.

What you need for the nomination

All documentation has to be submitted electronically and no hard copies are required.

Please submit the following documentations:

A single PDF document (named Nominee_Surname.pdf containing: **1)** a CV and proof of the nominee's eligibility; **2)** a complete list of publications as well as copies of up to five key original papers published in the last 3 years (published or accepted for publication); **3)** a short description of the candidate's career, her/his research interests and personal contributions to the various research projects she or he has been participating in.

Two letters of support from individuals outside the nominating institution, submitted as individual PDF files (scanned or electronically signed; named Supporter1Surname_support1.pdf and Supporter2Surname_support2.pdf)

A color photograph submitted as TIFF, EPS, or JPEG file measuring at least 4 x 6 cm at 300 dpi resolution for publication (Nominee_Surname_Firstname.tif/eps/.jpg; max. 4 MB).

Presentation and announcement of the award

During the XXV Complement Workshop 2014 in Brazil, the *Young Investigator Awardees* will be honored with a Certificate of Award and an honorarium. He/she will then give a 20-min lecture on her/his research. Their names will be published in the final program of the ICW, the ICS newsletter, and on the ICS website.

The Young Investigator Awardees are also given the opportunity to write or co-write a review paper reflecting their field(s) of research for publication in the Journal publishing the meeting abstracts.

Nomination for Young Investigator Award

Send your nomination to Dr. Zvi Fishelson by electronic mail to: <lifish@post.tau.ac.il>

The nomination deadline is 21 March 2014, 18.00 h CET.

The ICS board will select the awardees, who will be notified of the decision by the end of April 2014 at the latest. Please refrain from inquiring on the status of your nomination before this date.

NEWS FLASH

NEWS FLASH 1:

Inhibition of the Membrane Attack Complex of the Complement System Reduces Secondary Neuroaxonal Loss and Promotes Neurologic Recovery after Traumatic Brain Injury in Mice

K. Fluiter, A. L. Opperhuizen, B. P. Morgan, F. Baas, and V. Ramaglia
The Journal of Immunology 2014; 192: 2339-2348

The membrane attack complex (MAC) has been detected in traumatised brain after traumatic brain injury (TBI), the leading cause of disability and death in children and young adults. In this study Fluiter *et al.*, investigated the role of the terminal complement pathway in the pathology and the neurologic outcome of TBI modelled in mice. To inhibit MAC formation the authors used two inhibitors: a novel C6 antisense oligonucleotide and a C5 inhibitor from soft tick *Ornithodoros moubata* (OmCI). Both reagents not only inhibited MAC deposition and decreased inflammation in TBI brain 72hours post injury but also reduced the post-traumatic neurologic disability assessed by neurologic severity score. The authors observed that preventing MAC formation in the brain promoted neurological recovery and prevented weight loss in mice after brain injury. Furthermore they demonstrated that the significant improvement in the neurologic performance was due to reduction in neuronal apoptosis and neuroaxonal loss especially in the cerebellum, part of the brain important in the motor control. This well designed study provides evidence that targeting only the terminal stages of complement is neuroprotective and thus points to the MAC as a novel therapeutic target for TBI.

Reported by Dr. Marieta Ruseva, Post-doctoral Researcher, Centre for Complement and Inflammation Research, Imperial College, London

NEWS FLASH 2:

Eculizumab Prevents Recurrent Antiphospholipid Antibody Syndrome and Enables Successful Renal Transplantation

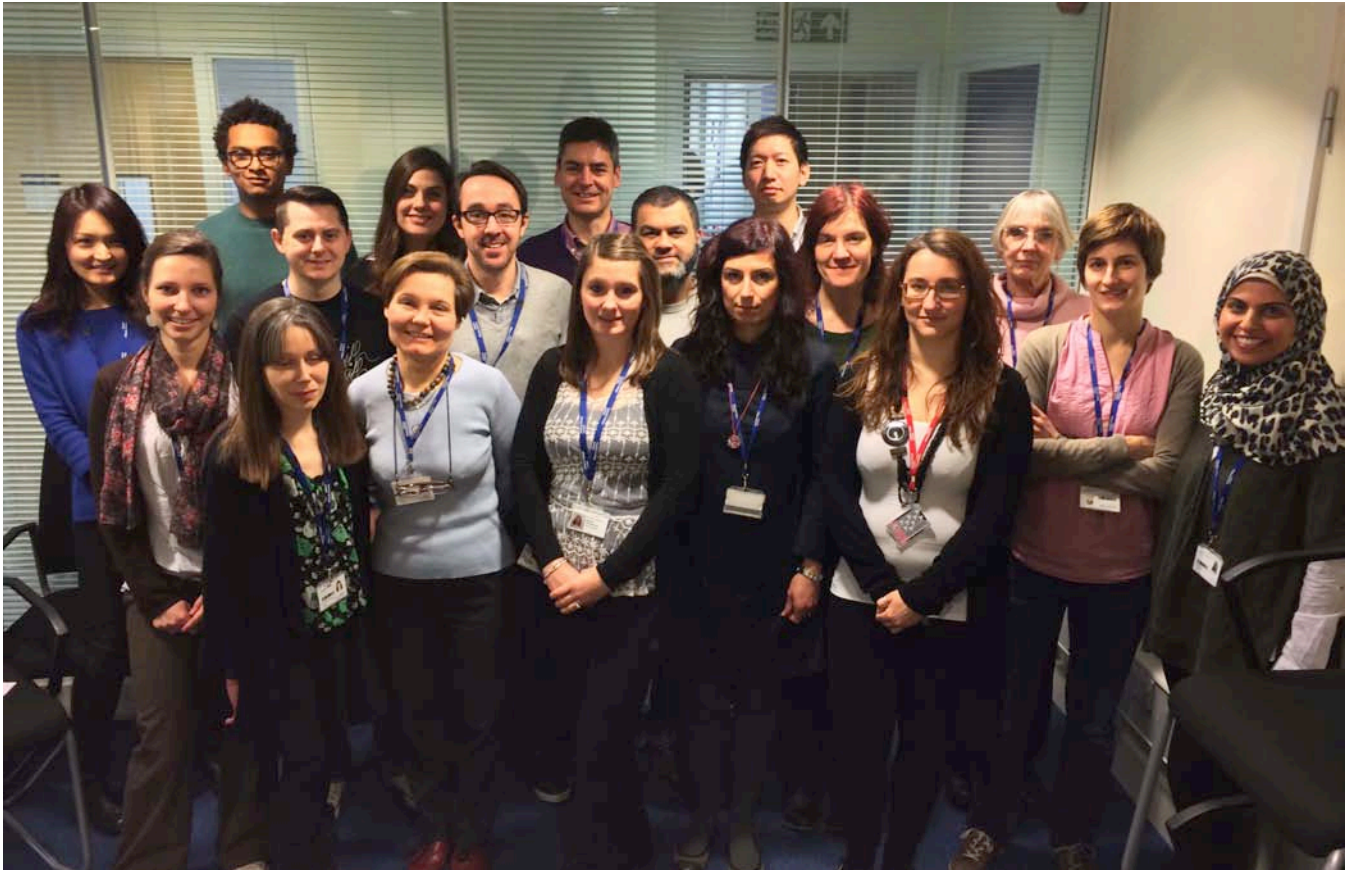
B. E. Lonze, A. A. Zachary, C. M. Magro, N. M. Desai, B. J. Orandi, N. N. Dagher, A. L. Singer, N. Carter-Monroe, S. M. Nazarian, D. L. Segev, M. B. Streiff and R. A. Montgomery
American Journal of Transplantation 2014; 14: 459–465

Anti-phospholipid syndrome (APS) is a clinical disorder characterized by pregnancy complications, macrovascular thrombosis and/or thrombotic microangiopathy (TMA). APS-related TMA may be localized to the kidneys or, in the rare form known as catastrophic APS (CAPS), affect multiple organs in association with ~40% mortality. In many cases of CAPS, a precipitant such as infection or surgery is present, sometimes contributing to disease relapses. In patients with APS who develop end-stage kidney disease, renal transplantation carries a high risk of thrombotic and microangiopathic complications due to recurrent APS. Evidence for complement activation in APS comes largely from animal models, with some limited clinical data. The latter includes a number of recent reports of off-label use of the C5-inhibitor eculizumab for prevention or treatment of post-renal transplant TMA in patients with APS. Lonze *et al.*, now report three patients with a history of CAPS in whom successful renal transplantation was undertaken using prophylactic eculizumab in conjunction with anticoagulation and other therapies. The authors conclude that 'while the appropriate duration of treatment remains to be determined, this case series suggests that complement inhibitors such as eculizumab may prove to be effective in preventing the recurrence of APS after renal transplantation'. A phase 2 clinical trial is also currently investigating whether eculizumab administered in the course of renal transplantation is beneficial in recipients with pre-transplant history of CAPS (NCT01029587).

Reported by Dr. Tom Barbour, Kidney Research UK Clinical Research Fellow, Centre for Complement and Inflammation Research, Imperial College, London

FOCUS ON COMPLEMENT RESEARCH

The Centre for Complement and Inflammation Research, Imperial College London



The Centre for Complement and Inflammation Research (CCIR) is based within the Department of Medicine at Imperial College, London. The strategic aim of the CCIR, Imperial College London is to understand the mechanisms of inflammation and the role of complement in human disease. The CCIR director is Prof. Marina Botto who is an international expert in complement and autoimmunity. The Deputy Director is Prof. Terry Cook who is an international expert on renal pathology. Examples of current researchers within the CCIR include: Prof. Matthew Pickering, a Wellcome Trust Senior Fellow in Clinical Science who studies the relationship between complement dysregulation and kidney injury; Dr. Jessica Strid, a Wellcome Trust New Investigator who is studying lymphoid stress surveillance, an exciting phenomenon that is relevant to allergy and cancer; Dr. Elena Goicoechea de Jorge, an Imperial College Junior Research Fellow studying the biology of the factor H-related proteins; Dr. Jacques Behmoaras, a Senior Researcher studying macrophage biology and Dr. Shane Duggan who is studying oesophageal inflammation and cancer. The CCIR administrator is Miss Claudia Rocchi and our laboratory manager is Miss Sharon Stubbs.

CCIR expertise includes *in vivo* experimental model systems, renal pathology, autoimmunity, innate immune mechanisms and complement genetics. Research funding sources include the Wellcome Trust, Arthritis Research UK, Kidney Research UK and the UK Biomedical Research Council. You can find details of all CCIR researchers and their research programs at the CCIR website:

<http://www1.imperial.ac.uk/departmentofmedicine/divisions/immunologyandinflammation/ccir/>

COMPLEMENT REAGENT RESOURCES

CEDARLANE®

www.cedarlanelabs.com

CEDARLANE® offers a wide range of complement related antibodies to mouse, rat and human specificities in various formats (purified, biotin, FITC, PE, enzyme conjugates).

Proteins... C1q, C3/C3b/iC3b, C3a, C3d, C4, C5, C6, MBL.

Regulators... C1 Inhibitor, Factor H, Factor I, Crry, DAF, CD59.

Receptors... C3aR, C5aR (CD88), CR3 (CD11b/CD18), CR1 (CD35), CR2 (CD21), gC1q-R.

Browse for targets, species and formats at...
www.cedarlanelabs.com/complement

In CANADA (New Address):
4410 Paletta Court, Burlington, ON L7L 5R2
Toll Free: 1-800-268-5058
ph: (289) 288-0001, fax: (289) 288-0020
General e-mail: general@cedarlanelabs.com

In the USA:
1210 Turrentine Street,
Burlington, NC 27215
Toll Free: 1-800-721-1644
ph: (336) 513-5135
fax: (336) 513-5138
General e-mail:
service@cedarlanelabs.com

We are an ISO 9001:2000 and
ISO 13485:2003 registered company.

The Complement Company

Innate Immunity • Acute phase proteins
Antimicrobial peptides • LPS, Microbial
toxins • Scavenger receptors • TLR
Inflammation • Cell & Tissue damage
Complement • Lipid binding proteins
Oxidative stress

Hycult®
biotech
www.hycultbiotech.com

- Broad portfolio for your Complement research
- Also specialized in other fields of Innate Immunity: TLR, Tissue damage, Antimicrobial peptides and more!
- ELISA kits for e.g. MBL, C1q, TCC, CFH, CFD, MASP-2, C3a and C5a
- Launch of Outstanding New ELISA for Mouse SAP
- Highlighted ELISA's: Human Properdin and Human PTX3
- Highlighted mAb: Mouse C5, mAb BB5.1
- Now available: 1-plate assays, for example for Human MBL and CFH
- Contact us for special bulk prices!
- Check our New Website and now also on [f](https://www.facebook.com/hycultbiotech) [t](https://twitter.com/hycultbiotech) [in](https://www.linkedin.com/company/hycultbiotech)
Connect with Hycult Biotech!

For more information or to register for our Newsletter, www.hycultbiotech.com



CompTech

Your primary source of
complement proteins and
reagents.

- Purified Complement Proteins
- Complement Cells (EA, Er) & Buffers
- Antisera to complement proteins
- Sera depleted of complement components
- Human Anaphylatoxins – C3a, C4a and desArg forms of C3a, C4a and C5a
- Now available: Human C5a (real C5a, not recombinant protein)

Complement Technology, Inc.

www.ComplementTech.com

Email: contactCTI@aol.com

Phone: 1-903-581-8284

Fax: 1-903-581-0491