

2nd Annual Meeting of the Lupus Academy

Abstract Book

Hilton Hotel

Buenos Aires

Argentina

17-18 April 2013



LupusAcademy

Communicate. Educate. Treat.



Welcome

Dear Friends and Colleagues,

we are delighted to welcome you to the 2nd Annual Meeting of The Lupus Academy, which we hope will be one of the most stimulating and rewarding meetings you will attend this year.

This meeting, which has full Continuing Medical Education (CME) accreditation, aims to provide cutting edge insights into advances in global research and clinical practice in Lupus and allied diseases. Delegate feedback from our inaugural meeting in Barcelona (2012) has guided us in our selection of topics and speakers to ensure that a top-class educational programme is provided.

The scientific component of this programme, developed by our Steering Committee of six international experts in Lupus, is designed to create a highly interactive forum through which we can develop a logical approach to the management of Lupus across the globe. It will give you the opportunity to meet world-leading clinicians and scientists and, through the sharing of clinical experience, develop your knowledge in this high-profile therapeutic area.

We sincerely hope that the meeting will provide you with new ideas and enhanced enthusiasm for collaborative research and discussion with your colleagues who care for patients with lupus.

We look forward to meeting and talking with you here in Buenos Aires.

With kind regards,

The Lupus Academy Steering Committee

Professor Munther A. Khamashta
Meeting Course Director, Co-Chairman

Professor David A. Isenberg
Programme Director, Co-Chairman

Professor Ricard Cervera; Professor Roger A. Levy; Professor Sandra V. Navarra; Professor Ronald F. van Vollenhoven



The 'European CME Forum' is accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide the following CME activity for medical specialists: '2nd Annual Meeting of the Lupus Academy'. It is designated for a maximum of 8 hours of European external CME credits. Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity. Go to www.lupus-academy.org for more information.

Continuing Medical Education



Financial Support



Mission Statement

The Lupus Academy is a long-term initiative committed to improving patient outcomes in SLE and allied diseases. By providing a highly interactive educational forum, the Lupus Academy is dedicated to sharing best clinical practice through the dissemination and discussion of cutting edge scientific and clinical research.



Wednesday 17 April			Page
18:15	Opening Address	Munther A. Khamashta (UK), David A. Isenberg (UK) & Bernardo A. Pons-Estel (Argentina)	
Keynote Lectures		<i>Moderator: Bernardo A. Pons-Estel (Argentina)</i>	
18:30	The genetics of lupus: where are we now?	Marta E. Alarcón-Riquelme (Spain/USA)	22
19:15	Decreasing morbidity and mortality and improving outcomes in SLE	Murray B. Urowitz (Canada)	24
20:00	Welcome Dinner		

Thursday 18 April			Page
07:00–08:15	Breakfast		
Plenary I: Lupus Manifestations		<i>Moderator: Andrea Doria (Italy)</i>	
08:30	Getting to the heart of the matter: improving cardiovascular outcomes	Ian N. Bruce (UK)	26
09:10	Clinical manifestations and evaluation of cutaneous lupus	Victoria P. Werth (USA)	28
Hot Topic Lecture		<i>Moderator: Zahir Amoura (France)</i>	
09:50	The burden of fatigue in lupus: from patient perspectives to effective management	Meenakshi Jolly (USA)	30
10:30	Coffee		
Case Study Workshops (AM)			
11:00	<i>Moderator/Facilitator: Loreto Massardo (Chile)</i> Biologics for SLE: the future is here. When and how to use biologic therapies in clinical practice	 Ronald F. van Vollenhoven (Sweden) & Marta Mosca (Italy)	34
11:00	<i>Moderator/Facilitator: Graciela S. Alarcón (USA)</i> Management and prevention of infections in SLE	 Ricard Cervera (Spain) & Sandra V. Navarra (Philippines)	36
11:00	<i>Moderator/Facilitator: Mary-Carmen Amigo (Mexico)</i> Lupus, pregnancy and APS: current issues in management	 Munther A. Khamashta (UK) & Roger A. Levy (Brazil)	38
11:00	<i>Moderator/Facilitator: Luis J. Catoggio (Argentina)</i> Lupus nephritis: update on modern management	 Liz Lightstone (UK) & Paula Alba (Argentina)	40
12:15	Lunch		

Thursday 18 April			Page
Case Study Workshops (PM)			
13:30	<i>Moderator/Facilitator: Loreto Massardo (Chile)</i> Biologics for SLE: the future is here. When and how to use biologic therapies in clinical practice	 Ronald F. van Vollenhoven (Sweden) & Marta Mosca (Italy)	34
13:30	<i>Moderator/Facilitator: Graciela S. Alarcón (USA)</i> Management and prevention of infections in SLE	 Ricard Cervera (Spain) & Sandra V. Navarra (Philippines)	36
13:30	<i>Moderator/Facilitator: Mary-Carmen Amigo (Mexico)</i> Lupus, pregnancy and APS: current issues in management	 Munther A. Khamashta (UK) & Roger A. Levy (Brazil)	38
13:30	<i>Moderator/Facilitator: Luis J. Catoggio (Argentina)</i> Lupus nephritis: update on modern management	 Liz Lightstone (UK) & Paula Alba (Argentina)	40
14:45	Coffee		
State-of-the-art Lecture		<i>Moderator: David A. Isenberg (UK)</i>	
15:10	T-cell signalling in patients with SLE: what every rheumatologist needs to know!	Liz Jury (UK)	42
Plenary II: New horizons in the basic science and clinical practice of SLE		<i>Moderator: Munther A. Khamashta (UK)</i>	
15:50	Immunopathogenic mechanisms driving SLE	Thomas Dörner (Germany)	44
16:30	Biologics in lupus: clinical practice to clinical trials... and now...	David A. Isenberg (UK) & Joan T. Merrill (USA)	46
17:10	Summary	Eloisa Bonfá (Brazil)	
17:30	Close	Munther A. Khamashta (UK) & David A. Isenberg (UK)	

Biographies



Professor Graciela S. Alarcón, MD, MPH
The University of Alabama at Birmingham, Alabama, USA

Graciela S. Alarcón is the *Jane Knight Lowe* Chair of Medicine In Rheumatology, Emeritus at the University of Alabama at Birmingham, Birmingham, Alabama. Professor Alarcón graduated as an MD from Universidad Peruana Cayetano Heredia in Lima, Perú in 1967, and as Master of Public Health from Johns Hopkins University in 1972. She trained in Rheumatology under Drs. Lawrence Schulman and Alex Townes, in Baltimore, Maryland. Upon her return to Perú she founded the first clinical and teaching Rheumatology Unit at her alma mater. In 1980 she returned to the US and has been in the Faculty at the University of Alabama at Birmingham (UAB) since, now as an Emeritus Professor.

For the past 20 years Professor Alarcón has been involved in the study of lupus in minority populations, establishing the LUMINA cohort. The work from this study has contributed to clarifying the role of socioeconomic factors involved in both the course and outcomes of lupus, the importance of lupus in the US Hispanic population, particularly among those with a significant

Amerindian ancestry, and the protective role of anti-malarials in retarding the occurrence of damage and in prolonging survival in patients with lupus. Since her retirement in 2009, she has continued to supervise the Latin American LUMINA Fellows that they develop their own cohorts in their country of origin. She has been actively involved in lupus studies at the international level with the work of the SLICC (for Systemic Lupus International Collaborating Clinics) and GLADEL (for Grupo Latino Americano de Estudio del Lupus or Latin-American Group for the Study of Lupus) groups. She is currently a clinical advisor to the Lupus Clinical Trials Consortium in their efforts to constitute a national registry of lupus patients; this effort is privately funded by Rheuminations, Inc. and when recruitment is completed should be constituted by about 2000 patients from the US and Canada.

In 2011, Professor Alarcón received the *Evelyn Hess* Award from the Lupus Foundation of America (LFA) in recognition for her studies in lupus and is currently a member of its medical scientific advisory board.

Disclosures

None.



Professor Marta E. Alarcón-Riquelme MD, PhD
Universidad de Granada, Spain and Oklahoma Medical Research Foundation, USA

Marta Alarcón-Riquelme is Head of the Human DNA Variability Area at the Center for Genomics and Oncological Research (GENYO), Granada, Spain and an Associate Member of the Oklahoma Medical Research Foundation (OMRF), USA. Professor Alarcón-Riquelme studied Medicine in Mexico, before moving to Sweden in 1987 where she was awarded her PhD in Immunology from Stockholm University. After her PhD she began forming research collaborations, which allowed her to build banks of samples for genetics studies, families and case-control sets. These efforts, and financing from the European 4th Framework Programme, allowed her to publish the identification of the first gene resulting from genetic linkage analyses of systemic lupus erythematosus (SLE) families, *PDCD1*, and the very first example of how to analyse a genetic polymorphism with impact on transcription factor binding and gene expression. In several subsequent studies, Professor Alarcón-Riquelme identified *BANK1* and developed understanding of the mechanisms through which genetic polymorphisms modulate gene function for *IRF5*, *CD226* and fine mappings of various genes published in top journals. Following these research activities, Professor Alarcón-Riquelme was invited to become a member of the International Lupus Genetics Consortium.

Professor Alarcón-Riquelme has been Editorial Advisor for *Genes & Immunity* and has served as Advisory Editor of *Arthritis & Rheumatism* and has been an invited speaker to over 55 meetings and congresses since 1996. She has been a grant evaluator for the Swedish Research Council (presiding in 2008 and 2009), Wellcome Trust (2001, 2004), Arthritis Research Campaign (2004, 2007), European Young Investigator Awards for Sweden (2007), and Academy of Finland (2011–2013), among others.

Professor Alarcón-Riquelme has dedicated her career to the understanding of the autoimmune disease SLE, focusing on the identification of susceptibility genes and how these impact on cell function. Since 1997 she has trained Masters students, PhD students and postdoctoral graduates and, since 2009, coordinated the European Research Network BIOLUPUS with members from 10 European countries funded through the European Science Foundation (2009–2014); this network consolidates clinical information from all European SLE patients and centralises data and samples for genetic analyses. Professor Alarcón-Riquelme also coordinates two large multicenter collaborations in Latin America on lupus (GENLES) and rheumatoid arthritis (GENAR) involving 60 clinical centres.

Disclosures

None.



Professor Paula Alba, MD, PhD
State University of Córdoba, Argentina

Paula Alba is a Consultant Rheumatologist, Assistant Professor and Clinical Researcher in Internal Medicine and Rheumatology at the Córdoba Hospital, State University of Córdoba. She graduated from Medical School at the State University Córdoba in 1992 and finished her Internal Medicine and Rheumatology specialties at the Córdoba Hospital. She subsequently completed a fellowship programme in the Lupus Research Unit at St Thomas' Hospital London in 2001, and she received her PhD in Medicine and Surgery from the Faculty of Medicine at the State University of Córdoba in 2008.

Professor Alba is a Managing Editor of *Revista de Facultad de Ciencias Médicas UNC* and on the Editorial Board of *Revista de la Sociedad Argentina de Reumatología*. She is a member of Argentinian Society of Rheumatology and was a member of the Scientific Committee of the Argentinian Congress of Rheumatology (2011–2012).

Professor Alba's clinical and research interests include the clinical and immunological aspects of systemic lupus erythematosus, particularly lupus nephritis, and antiphospholipid syndrome and pregnancy. She has published over 30 articles in medical journals and over 10 book chapters.

Disclosures

None.

Biographies



Professor Mary-Carmen Amigo MD, FACP
ABC Medical Centre, Mexico

Mary-Carmen Amigo is Professor of Rheumatology and Head of the Rheumatology Division at ABC Medical Centre, Mexico City. She qualified in medicine (*Summa Cum Laude*) from Universidad Nacional Autónoma de México (UNAM) Medical School in 1974, after which she undertook her residency at Hospital Español, Mexico City before starting her fellowship in rheumatology at the Instituto Nacional de Cardiología Ignacio Chávez in 1980. Professor Amigo served as Associate Professor of Rheumatology at UNAM (1986–2006) and was a member of the national system of researchers in Mexico between 1994 and 2008. She became a Master of the Mexican College of Rheumatology in 2010 and has held academic affiliations with St. Thomas' Hospital London in 1997, 2000 and 2012.

Professor Amigo is a member of numerous professional societies and has held several posts on the Mexican Board of Rheumatology and at the Mexican College of Rheumatology. She is on the Editorial Boards for the journals *Lupus*, *Reumatología Clínica* and *Current Opinion in Rheumatology*.

Professor Amigo's main clinical research interests focus on antiphospholipid syndrome and systemic lupus erythematosus, in particular cardiovascular, pulmonary, renal and pregnancy complications. To date, she has published 27 book chapters and 54 scientific papers.

Disclosures

None.



Professor Zahir Amoura, MD
Groupe Hospitalier Pitié-Salpêtrière, Paris, France

Zahir Amoura is Professor of Internal Medicine at the French National Reference Centre for Systemic Lupus Erythematosus at Pitié-Salpêtrière Hospital, a role that he has held since 2003. In 2009, Professor Amoura became Head of the Department of Internal Medicine in the same institution. He completed his Paris Hospitals Medical Internship in 1988, obtained a Masters degree in Immunopharmacology in 1989, and was subsequently awarded his MD (Silver Medal) in 1993 and his qualifying certification in Internal Medicine in 1994. Professor Amoura joined the Department of Internal Medicine at Pitié-Salpêtrière Hospital in 1995 as a Senior Lecturer and Senior Practitioner.

In the last 10 years, Professor Amoura has published over 294 peer-reviewed papers, of which 70 focused on the immunopathological features of lupus.

Disclosures

Grant/Research:

Amgen,
Bristol Myers Squibb,
GlaxoSmithKline, Lilly,
Merck, TEVA

Consultant/Advisor:

GlaxoSmithKline, UCB



Professor Eloisa Bonfá MD, PhD
University of São Paulo Medical School, Brazil

Professor Eloisa Bonfá is the Physician-in-Chief of the Rheumatology Division of the University of São Paulo, the largest tertiary referral centre for autoimmune rheumatic disorders of Latin America. She was also elected Clinical Director of the same Hospital for 4 years. Graduating from the University of São Paulo Medical School, Professor Bonfá undertook specialist training in rheumatology in the same University, followed by a 4-year Rheumatology Research Fellowship at the Hospital for Special Surgery, New York, under the supervision of Professor Keith Elkon.

Professor Bonfá's main clinical and research interests are systemic lupus erythematosus and autoimmunity with contributions in the field of autoantibodies, the association of anti-ribosomal P antibodies with psychiatric manifestation of lupus and the first *in vitro* demonstration of the arrhythmogenic potential of purified Ro/SSA antibodies. More recently, she has described the association of anti-ribosomal P antibodies and lupus membranous nephritis and published several papers on autoimmune disorders and influenza vaccine. She has published more than 150 original papers and several book chapters.

Disclosures

None.



Professor Ian N. Bruce, MD, FRCP
University of Manchester, UK

Ian Bruce is Professor of Rheumatology at the Arthritis Research UK Epidemiology Unit, School of Translational Medicine, University of Manchester. He is co-Chair of the Inflammatory Musculoskeletal Conditions Division, and lead for the Cardiovascular Research Group. He qualified in medicine from Queen's University Belfast in 1988 and gained his MRCP in 1991. He trained in medicine and rheumatology in Northern Ireland and completed his MD thesis on the pathogenesis of systemic vasculitis in 1995. He was the Geoff Carr Lupus Fellow at the University of Toronto, before moving to Manchester in 1998 as an NHS consultant, transferring to the University in 2003.

of national and international multicentre studies that are seeking to refine our understanding of systemic lupus erythematosus (SLE). He leads the Cardiovascular Group within the Arthritis Research UK Epidemiology Unit and is joint Principal Investigator on the Norfolk Arthritis Registry (NOAR), Cardiovascular Substudy. He is involved in the Wellcome Trust Case Control Consortium and the British Society for Rheumatology Biologics Registry Control Consortium.

Professor Bruce's major research focus is on the association between inflammatory rheumatic diseases and premature atherosclerosis/coronary heart disease. In particular, his focus is on SLE and rheumatoid arthritis. He has published 100 papers in his field.

Disclosures

Grant/Research:

Genzyme, GlaxoSmithKline,
Human Genome Sciences,
Roche, UCB

Consultant/Advisor:

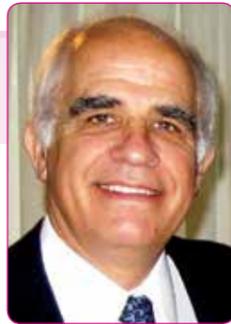
Genzyme, GlaxoSmithKline,
Human Genome Sciences,
Roche, UCB

Speakers' Bureau:

Genzyme, GlaxoSmithKline,
Human Genome Sciences,
Roche, UCB

Professor Bruce is on the Editorial Board of the journal *Rheumatology*. He is a member of the Systemic Lupus International Collaborating Clinics (SLICC) and the British Isles Lupus Assessment Group, and participates in a number

Biographies



Professor Luis J. Catoggio, MD, PhD
Hospital Italiano de Buenos Aires, Argentina

Luis J. Catoggio is an Associate Professor of Medicine at the Instituto Escuela de Medicina, Hospital Italiano de Buenos Aires and Associate Director of the Rheumatology Training Program of the School of Medicine at the University of Buenos Aires. He is also a Research Coordinator of the Department of Education and Research of the Hospital Italiano, and has been a member of the Comité de Ética de Protocolos de Investigación at Hospital Italiano since 1984. He was Chief of the Rheumatology Section at Hospital Italiano between 1983 and 2010 and remains an active member of the section.

After completing his Residency in Internal Medicine and being Chief Resident, Professor Catoggio trained in Rheumatology as Clinical Research Fellow and Honorary Registrar at the Royal National Hospital for Rheumatic Diseases in Bath, UK between 1980 and 1982. Upon his return to Buenos Aires in 1983, he became Chief of Rheumatology at the Hospital Italiano, a department that currently has 10 members of staff, 10 fellows in training and currently sees over 1500 outpatients each month.

Disclosures

None.



Professor Ricard Cervera, MD, PhD, FRCP
Hospital Clínic, Barcelona, Catalonia, Spain

Ricard Cervera is Head of the Department of Autoimmune Diseases (which he co-founded in 1995), at Hospital Clínic, Catalonia, Barcelona. He is also Director of the Research Group on Systemic Autoimmune Diseases at the Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS). He qualified in Medicine in 1983 from the University of Barcelona and received his PhD in 1988 for his thesis on anticardiolipin antibodies. He spent two years at the Lupus Research Unit at The Rayne Institute, St Thomas' Hospital, London.

Latin-American Congresses on Autoimmunity, the 5th Meeting of the European Forum on Antiphospholipid Antibodies, and the 8th European Lupus Congress.

Professor Cervera's research interests include clinical and epidemiological aspects of systemic autoimmune diseases, particularly systemic lupus erythematosus and the antiphospholipid syndrome, with special focus on its 'catastrophic' variant. He has presented over 300 invited lectures and published more than 800 scientific papers (h factor, 52), including original articles at the *New England Journal of Medicine*, *The Lancet*, *Annals of Rheumatic Diseases*, *Arthritis and Rheumatism*, *American Journal of Medicine*, and *Medicine* (Baltimore). He is co-editor of 20 books, including 'The antiphospholipid syndrome', 'Vascular Manifestations of Systemic Autoimmune Diseases', and 'Diagnostic Criteria in Autoimmune Diseases'.

Disclosures

Consultant/Advisor:
GlaxoSmithKline,
Human Genome Sciences,
Immunomedics, UCB

Professor Cervera is a member of the Lupus Academy Steering Committee and has been involved in the planning and development of the meeting programme and materials.

Professor Cervera is on the Editorial Boards of 20 medical journals. He is coordinator of the European Forum on Antiphospholipid Antibodies and of the European Working Party on Systemic Lupus Erythematosus, Chairman of the Medical Advisory Board of the Catalan Association of Lupus Patients, and Medical Advisor to Lupus Europe. He chaired the 6th and 8th International Congresses on Autoimmunity, the 1st and 2nd



Professor Andrea Doria, MD
University of Padova, Italy

Andrea Doria is Associate Professor of Rheumatology, Director of the Academic Postgraduate School of Rheumatology and Head of the Unit of Connective Tissue Disease and Rare Rheumatic Diseases, University of Padova.

Disclosures

Consultant/Advisor:
GlaxoSmithKline
Speakers' Bureau:
GlaxoSmithKline

Professor Doria received his medical degree and qualification in rheumatology from the University of Padova. He was Council member of the Italian College of Rheumatology (CRO) (1999–2005) and a Council member of the Italian Society of Rheumatology (SIR) (2007–2010). He is also a member of the American College of Rheumatology (ACR).

Professor Doria has organised over 10 international conferences on autoimmunity and was involved as "expert" in the European League Against Rheumatism (EULAR) Standing Committee for the development of clinical and therapeutic recommendations: (1) EULAR recommendations for the management of systemic lupus erythematosus (SLE)—Assessment of the SLE patient (2008–2009); (2) EULAR recommendations for the management of SLE Part II—Neuropsychiatric disease (2008–2009); (3) Joint EULAR and European Renal Association-European Dialysis and Transplant Association (EULAR/ERA-EDTA) recommendations for the management of adult and paediatric lupus nephritis (2012).

Professor Doria is on the Editorial Boards of several rheumatology and immunology journals, including *Lupus*, *Autoimmunity*, *Clinical and Experimental Rheumatology*, *Autoimmunity Reviews*, *Journal of Autoimmunity*, *Experimental Biology and Medicine*, *Rheumatology Reports*, *Journal Autoimmunity Highlights* and *Reumatismo* (the official journal of the SIR). He has authored over 200 ISI publications on SLE and other connective tissue diseases. These include clinical studies describing new manifestations or subgroup of autoimmune disorders, prognostic risk factors, diagnostic tests and therapeutic interventions as well as immunochemical studies that evaluate autoantibodies, epitopes and complementary epitopes of autoantigens. In addition, he has authored and co-authored three books, over 90 book chapters and conference proceedings, and over 200 abstracts to national and international conferences.

Professor Doria has a long-standing experience in clinical management of connective tissue disease patients. The Unit in which he works is a 3rd referral rheumatology centre, within Italy, for the diagnosis and management of patients affected with systemic connective diseases. In addition, he has expertise in the management and follow-up of pregnant patients with systemic rheumatic diseases. Professor Doria has also trained over 30 students in rheumatology.

Biographies



Professor Thomas Dörner, MD
Charite University Hospitals, Berlin, Germany

Thomas Dörner is a board certified Rheumatologist and Professor of Rheumatology and Hemostaseology at Charite University Hospitals, Berlin and group leader at the German Research Centre of Rheumatology, Berlin. He qualified in medicine in 1990 at Charite University Hospitals, Berlin and received his board certification in internal medicine in 1995 before undertaking a post-doctoral fellowship at the University of Texas, Southwestern Medical Centre at Dallas, where he researched delineating molecular aspects of the B-cell receptor gene usage.

Professor Dörner has received a number of international and national awards, including the Senior Scholar Award of the American Society of Rheumatology, the H Schultze Award of the German League against Rheumatism and the Schoen Award of the German Society of Rheumatology.

Professor Dörner has served as a member of Editorial Boards of leading journals in

rheumatology, including *Arthritis and Rheumatism*, *Arthritis Research and Therapy*, *Annals of the Rheumatic Diseases*, *Global Arthritis Research Network (GARN)*, *Current Reviews in Rheumatology*, *Brazilian Journal of Rheumatology*, *European Journal of Immunology* and *Rheumatology Reviews*.

Professor Dörner has led various clinical trials of rheumatic diseases, including systemic lupus erythematosus, Sjögren's syndrome, rheumatoid arthritis and seronegative spondylarthropathies. His research interests focus on the characterisation of disturbances of humoral autoimmunity and abnormalities of B cell differentiation in autoimmune diseases (lupus, neonatal lupus syndromes, Sjögren's syndrome, immune thrombocytopenia) and exploring innovative therapeutic approaches with particular focus on B-cell directed therapy as well as improving diagnostic tools in autoimmune diseases.

Disclosures

Grant/Research:

Roche, Sanofi, UCB

Consultant/Advisor:

Roche, UCB

Speakers' Bureau:

GlaxoSmithKline, Roche, UCB



Professor David A. Isenberg, MD, FRCP, FAMS
University College London, UK

David Isenberg is the Arthritis Research UK Diamond Jubilee Professor of Rheumatology at University College London (UCL). He graduated from St Bartholomew's Hospital, London in 1973, and trained in general medicine, rheumatology, neurology, psychiatry, and gastroenterology, becoming a Research Fellow at UCL/The Middlesex Hospital in 1979. He was awarded his MD in 1984, based on his studies of myositis. During a year of research at Tufts University, Boston, he became interested in autoantibody structure/function and origin. He was appointed Consultant Rheumatologist in 1984, Professor in 1991, and became the arc Diamond Jubilee Chair of Rheumatology at UCL in 1996. He has Fellowships of both the Royal College of Physicians and the Academy of Medical Sciences.

Professor Isenberg is on the Editorial Boards of five journals, including the *Journal of Rheumatology*. He is Chair of the British Isles Assessment Group

and was Chair of the Systemic Lupus International Collaborating Clinics group (SLICC). During the past 20 years, Professor Isenberg has undertaken many roles at Arthritis Research UK, for whom he currently chairs the autoimmune rheumatic disease clinical trials sub-committee. He is past President of the British Society for Rheumatology (2004–2006) and has chaired the Society's Biologics Register Committee (2006–2011). Professor Isenberg is the 2010 recipient of the Evelyn Hess Prize from the Lupus Foundation of America for his contribution to lupus research and treatment.

Professor Isenberg's principal clinical interests are the development of disease activity and damage assessment tools in patients with lupus. His specialist interest is autoimmune rheumatic diseases, notably systemic lupus erythematosus, Sjögren's syndrome, myositis, and antiphospholipid antibody syndrome.

Disclosures

Professor Isenberg is a member of the Lupus Academy Steering Committee and has been involved in the planning and development of the meeting programme and materials.



Professor Meenakshi Jolly, MD
Rush University Medical Centre, Chicago, USA

Meenakshi Jolly is the Director of the Rush Lupus Clinic and Attending Physician at Rush University Medical Centre, Chicago. She is also an Associate Professor in the Department of Internal Medicine and Associate Director of the Rheumatology Fellowship Program at Rush Medical College. Professor Jolly received her medical degree from Maulana Azad Medical College, Delhi, India. She completed her residency in internal medicine at the Cleveland Clinic Foundation, her fellowship in rheumatology at the University of Chicago and has also received a master's degree in health studies from the University of Chicago. She served as Section Chief of Rheumatology at Christ Medical Centre, University of Illinois prior to joining the Rush Medical Centre.

Professor Jolly serves on the medical Advisory Board and Board of Directors of the Lupus Foundation

of America, Illinois Chapter, and on the Physician Advisory Council of the Lupus Research Institute. She is a member of the American College of Rheumatology (ACR), the Arthritis Foundation, the International Society of Quality of Life, Society of Behavioral Medicine and the Central Society of Clinical Research.

She is engaged in investigator-initiated, collaborative lupus research and clinical trials. Her research interests include psychosocial aspects (body image and sexual health) of lupus and patient-reported health outcomes (including quality of life measures). Her work has been published in journals such as *Annals of Rheumatic Disease*, *Arthritis and Rheumatism*, *Journal of Rheumatology* and *Lupus*.

Disclosures

Grant/Research:

GlaxoSmithKline, Lupus Foundation, The Binding Site

Consultant/Advisor:

GlaxoSmithKline, Medimmune



Dr Elizabeth Jury
University College London, UK

Elizabeth Jury is an Arthritis Research UK Career Progression Fellow at the Centre for Rheumatology Research, University College London. Dr Jury started her career at St Bartholomew's Hospital, London developing the Immunopathology service specialising in the diagnosis of autoimmunity, immunodeficiency and immunophenotyping. She moved to a more research-focused career joining Professor David Isenberg's team in 2000 and now leads her own research group within the Centre for Rheumatology Research at University College London. Dr Jury's work has developed new areas of research into signalling abnormalities in T- and B-cells from patients with systemic lupus erythematosus (SLE) making a significant contribution towards understanding the nature of these abnormalities and how they relate to disease pathogenesis. The main focus of her research is to understand the role of plasma membrane, cellular and serum lipids on immune cell activation. Dr Jury was one of the first to identify defects in plasma membrane lipids in T-cells from patients with SLE.

She revealed that these defects contributed to T-cell hyperactivity and has shown that by manipulating cholesterol biosynthesis using atorvastatin some of the signalling and functional defects seen in T-cells from patients can be reversed.

More recently Dr Jury has used a new approach to visualise the organisation (order) of plasma membrane lipids and found that T-cells have specific patterns of membrane lipid-order that correlate with their function. Importantly, she has shown that manipulation of membrane order can control T-cell function, adding weight to her hypothesis that therapeutic targeting of membrane lipids can correct aberrant immune cell activation. Dr Jury has also shown that invariant Natural Killer T-cells (iNKT), a unique subset of T-cells that recognise lipid antigen, are deficient in SLE patients. Interestingly iNKT cell defects were reversed in patients responding to rituximab therapy.

Disclosures

None.

Biographies



Professor Munther A. Khamashta, MD, PhD, FRCP
St Thomas' Hospital, London, UK

Munther Khamashta is Professor/Consultant Physician and Director of The Graham Hughes Lupus Research Laboratory at St Thomas' Hospital, London, and runs a large lupus pregnancy clinic. He studied medicine in Barcelona and internal medicine in Madrid, Spain, where he developed an interest in connective tissue diseases and received his PhD. He was awarded the MRCP in 1999 and FRCP in 2002. He joined the Lupus Unit in London over 25 years ago and has been instrumental in developing it into an internationally recognised tertiary centre receiving referrals from all over the UK.

Professor Khamashta has served on the Editorial Boards of many journals, including *Clinical and Experimental Rheumatology*, *Lupus*, and *Current Rheumatology Reviews*. He is a member of several professional societies, including the International

Society of Internal Medicine, the American College of Rheumatology (ACR), and the Spanish Society of Rheumatology. He is a member of the Steering Committee of the International Board on the Study of Antiphospholipid Antibodies and of the Steering Committee of the International Advisory Board for Systemic Lupus Erythematosus. He has received several international awards for his work in lupus, including The European League Against Rheumatism (EULAR) and International League Against Rheumatism (ILAR) prizes.

Professor Khamashta has a strong research interest in lupus and connective tissue diseases, with a special interest in pregnancy and antiphospholipid syndrome. He has published extensively in lupus, Hughes' syndrome and related areas, with more than 600 original papers.

Disclosures

Professor Khamashta is a member of the Lupus Academy Steering Committee and has been involved in the planning and development of the meeting programme and materials.



Professor Roger A. Levy, MD, PhD
The State University of Rio de Janeiro, Brazil

Roger Levy is Adjunct Professor of Rheumatology at The State University of Rio de Janeiro, Brazil. Graduating from medical school at the University of Rio de Janeiro in 1986, he subsequently completed a fellowship programme at the Hospital for Special Surgery, Cornell Medical College, New York in 1989 and received his PhD in Biological Sciences from the Biophysics Institute – Immunology, at the Federal University of Rio de Janeiro.

Professor Levy holds positions on a number of Editorial Boards including the *Journal of Clinical Rheumatology*, *Lupus*, *Seminars of Arthritis and Rheumatism*, *Rheumatology*, *Autoimmunity reviews*, and *The Brazilian Journal of Rheumatology* (of which he is a former Editor). He was the Scientific Director of the XXV Brazilian Congress of Rheumatology and chaired the 2nd

Latin American Congress of Autoimmunity (Rio de Janeiro, 2006). Professor Levy was President of the Rio de Janeiro Rheumatology Society (2007–2008). He is currently coordinating the vasculopathies committee of the Brazilian Society of Rheumatology and will chair the XIV International Antiphospholipid Congress (APLA) and the Latin American Congress of Autoimmunity (LACA) in Rio de Janeiro in September 2013.

Professor Levy's research is based around the clinical and immunologic aspects of systemic lupus erythematosus, antiphospholipid syndrome, Sjögren's syndrome, and pregnancy in rheumatic patients. He has published over 80 articles in medical journals, over 100 abstracts, and over 20 book chapters, and has lectured in many countries.

Disclosures

Consultant/Advisor:
Abbott, GlaxoSmithKline, Human Genome Sciences, Roche

Speakers' Bureau:
Abbott, GlaxoSmithKline, Human Genome Sciences, Roche

Professor Levy is a member of the Lupus Academy Steering Committee and has been involved in the planning and development of the meeting programme and materials.



Dr Liz Lightstone, PhD, FRCP
Imperial College London, UK

Liz Lightstone is a Reader in Renal Medicine in the Division of Immunology and Inflammation, Department of Medicine, Imperial College London, and an Honorary Consultant Renal Physician in the Imperial College Healthcare NHS Trust Renal and Transplant Centre (ICHNT RTC). After an undergraduate degree at Cambridge, she graduated in medicine from the University of London in 1983, and trained in nephrology at the Royal Postgraduate Medical School. She won a Medical Research Council Training Fellowship in 1988, and undertook a PhD in immunology at University College London. This was followed by a Medical Research Council Clinician Scientist Fellowship at the Royal Postgraduate Medical School. She was appointed Senior Lecturer and Honorary Consultant Physician in 1995.

Dr Lightstone has major roles in undergraduate and postgraduate medicine at Imperial College, in particular in her role as Director of the Academic Foundation programme within North West Thames Foundation School. She is a member of the LUPUS UK Peer Review Panel. She was an elected member of the UK Renal Association Executive and remains active in the Renal Association Programme Planning group and Equal Opportunities Committee.

Disclosures

Grant/Research:

Roche

Consultant/Advisor:

Aspreva Pharmaceuticals, Biogen Idec, GlaxoSmithKline, Roche, Medimmune

Other:

GlaxoSmithKline (honorary to attend American Society of Nephrology)

Dr Lightstone's research is now focused on lupus nephritis and renal disease in ethnic communities. Together with colleagues in the ICHNT RTC, she has pioneered the use of steroid-minimising regimens in lupus nephritis. She is chief investigator on the planned international multicentre randomised RITUXILUP trial which has recently been awarded funding by Arthritis Research UK. The trial will address the question as to whether the regimen of two doses of methyl prednisolone plus two doses of rituximab plus mycophenolate mofetil (MMF) but no oral steroids is as good as the standard combination of MMF and steroids in treating lupus nephritis. She is also working on identifying urine biomarkers that better predict the outcome of lupus nephritis. She is joint Principal Investigator on a study, funded by Kidney Research UK, to identify the incidence and progression of chronic kidney disease in the Indian Asian community in West London. Her main clinical interests are in lupus nephritis and the management of women with kidney disease in pregnancy.



Professor Loreto Massardo, MD
Pontificia Universidad Católica de Chile, Santiago, Chile

Loreto Massardo is a Full Professor and Attending Rheumatologist at the Pontificia Universidad Católica de Chile in Santiago. She first graduated from Pontificia Universidad Católica de Chile with a medical degree in 1979 and with a post-graduate degree in Clinical Immunology and Rheumatology in 1982. Following graduation, Professor Massardo worked as a General Practitioner at Hospital Regional de Talca, Chile, and as a Rheumatologist at the Hospital Dr Sotero, Santiago, Chile. She returned to Pontificia Universidad Católica de Chile in 1985, and accepted her current post in 2010. During her career, Professor Massardo has undergone training in rheumatology at the University of Bristol, UK and has also held the position of Visiting Clinician at the Mayo Clinic, Minnesota, USA.

Professor Massardo has held positions with several societies, including Secretary of the Sociedad Chilena de Reumatología (1991–1992), Director of the Sociedad Chilena de Reumatología (1997–1998) and Chairperson of the Rheumatoid Arthritis Study Group of PANLAR (2002–2006). At the 2009 American College of Rheumatology (ACR) meeting in Philadelphia, she moderated the session on Challenges of Rheumatoid Arthritis in Latin America.

Professor Massardo's research interests include systemic lupus erythematosus and rheumatoid arthritis, particularly in Latin American populations, and Neuropsychiatric lupus. She has presented findings from her research at major international congresses and has more than 45 articles published in peer-review journals, including *Arthritis and Rheumatism*, *Rheumatology* and *Lupus*.

Disclosures

Consultant/Advisor:

GlaxoSmithKline, Jansen

Biographies



Professor Joan T. Merrill, MD
University of Oklahoma, USA

Joan T Merrill is the Head of the Clinical Pharmacology Research Program at the Oklahoma Medical Research Foundation (OMRF) and OMRF Professor of Medicine and Adjunct Professor of the School of Pharmacy at the University of Oklahoma. She graduated from Medical School at Cornell University, New York in 1985 and is the recipient of the Edmund Dubois Award/Lecture from the American College of Rheumatology (ACR; 2000) the Ira Goldstein Award and Lectureship at the New York University Advanced Course in Rheumatology (2006) and the Pemberton Lecture of the Philadelphia Rheumatism Society in 2010.

Professor Merrill has been active in the design and implementation of many interventional clinical trials for lupus with a focus on defining clinical and biologic subgroups to optimise treatment selection and dosing.

Disclosures

Grant/Research:

Bristol Myers Squibb, Dynavax, Genentech/Roche, GlaxoSmithKline, Human Genome Sciences, Lilly, Medimmune, Rigel, UCB

Consultant/Advisor:

Abbott, Amgen, Argos, Astellas, Baxter, Bristol Myers Squibb, Cephalon, Eisai, Genentech/Roche, GlaxoSmithKline, Human Genome Sciences, Lilly, Medimmune, Neovax, Ono, Parexel, Pfizer, Questcor, Research Pharmaceutical Services, Serono, Takeda, UCB

Speakers' Bureau:

GlaxoSmithKline, Human Genome Science, Research Pharmaceutical Services

Professor Merrill is Medical Director of the Lupus Foundation of America (2004–present) and has served on the Medical and Scientific Committee of the National Arthritis Foundation (2000–2003), Research Committee and Clinical Research Subcommittee of the ACR (2002–2004), as Chair of the Antiphospholipid Subcommittee of the ACR (1999–2002), Planning Committee member of the ACR Meeting (1999–2002), ACR Sponsored Programs Committee (1999–2002) and as Vice-Chair of the Medical and Scientific Committee, New York, Chapter Arthritis Foundation (2000–2001).



Professor Marta Mosca, MD
University of Pisa, Italy

Marta Mosca is Associate Professor in Rheumatology at the Department of Internal Medicine of the University of Pisa, Italy. Professor Mosca graduated from Medical School at the University of Pisa in 1992.

Her clinical activity includes the follow up of patients with connective tissue diseases followed at the Rheumatology Unit, where she runs the Lupus Clinic and the Pregnancy Clinic.

Disclosures

Consultant/Advisor:

GlaxoSmithKline, Lilly, UCB

Her research interests are represented by systemic lupus erythematosus (SLE) and undifferentiated connective tissue diseases, with particular interest to clinimetrics. Recently she has worked on the development of "EULAR Recommendations for monitoring SLE patients in clinical practice and observational studies", of quality measures in SLE and of a core set of measures to be used in clinical practice to standardise patients' care.



Professor Sandra V. Navarra, MD, FPCP, FPRA
University of Santo Tomas, Manila, Philippines

Sandra Navarra is professor and head of Rheumatology at University of Santo Tomas, Manila, and consultant Rheumatologist at St. Luke's Medical Center in the Philippines. She served as secretary-general, head of the Education Committee, chaired the special interest group on systemic lupus erythematosus of the Asia Pacific League of Associations for Rheumatology (APLAR), and was senior associate editor of the International Journal of Rheumatic Diseases. She founded the Arthritis Care and Research Foundation of the Philippines, where she is currently Scientific Programs Director, and the Lupus Foundation of the Philippines, where she served as medical director. Currently president and CEO of the Rheumatology Educational Trust Foundation (RETFI), she is the prime mover of the Lupus Inspired Advocacy (LUIA) Project for lupus education and research, and the People Empowerment for Arthritis and Lupus (PEARL) Movement for lay education and medical assistance programmes.

Professor Navarra has organised several national and regional educational meetings including the Ten Topics in Rheumatology – Asia in 2009 – and the Asian Lupus Summit held in November 2012 in Manila, Philippines.

She is an experienced clinical trials investigator and has received several university and national awards for education and research.

Disclosures

Grant/Research:

GlaxoSmithKline, Human Genome Sciences

Consultant/Advisor:

GlaxoSmithKline, Human Genome Sciences

Speakers' Bureau:

GlaxoSmithKline, Human Genome Sciences, Pfizer, Roche

Professor Navarra is a member of the Lupus Academy Steering Committee and has been involved in the planning and development of the meeting programme and materials.



Professor Bernardo A. Pons-Estel, MD
Cardiovascular Institute of Rosario, Rosario, Argentina

Bernardo Pons-Estel is Head of Rheumatology at the Cardiovascular Institute of Rosario, Rosario, Argentina. Professor Pons-Estel obtained his medical degree from the National University of Rosario and received a Rheumatology Scholarship from the Rosario University Medical Centre before completing a Fellowship within the Division of Rheumatology at the Bellevue Hospital, New York University Medical Centre, New York, USA in 1982. During 1983–1984, Professor Pons-Estel completed his MD at the Division of Rheumatology and Immunology, University of Missouri Cancer Research Centre, Columbia, Missouri and Irvington House Institute, University Hospital, New York University Medical Centre, New York.

Professor Pons-Estel is the Principal Co-ordinator for the Latin American Group for the Study of Systemic Lupus Erythematosus (GLADEL) and the Genomic Study of Latin-American Patients with Systemic Lupus Erythematosus. He is also President of the Argentine Rheumatology Society for 2011–2013 and is an International Member of the American College of Rheumatology (ACR).

Professor Pons-Estel has authored and co-authored more than 65 papers in international peer-reviewed journals, including *Nature Genetics*, *American Journal of Human Genetics*, *Lupus*, *Journal of Clinical Rheumatology*, *Annals of Rheumatic Diseases*, *Rheumatology*, *Journal of Rheumatology*, *Arthritis and Rheumatism* and *Genes and Immunity*.

Disclosures

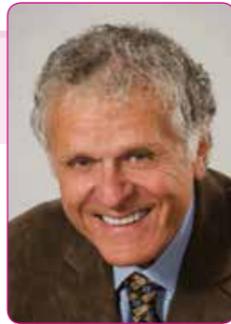
Grant/Research:

Abbott

Consultant/Advisor:

Montpellier, Pfizer

Biographies



Professor Murray Urowitz, MD
University of Toronto, Canada

Murray Urowitz received his MD from the University of Toronto in 1963. He completed his postgraduate training in rheumatology at the Johns Hopkins University, Baltimore and at the University of Toronto in 1969. He was a Staff Rheumatologist at the Wellesley Hospital in Toronto (1974–1987) and Physician in Chief (1987–1995). He has been a Senior Staff Rheumatologist at the Toronto Western Hospital and Senior Scientist at the Toronto Western Research Institute since 1995. Professor Urowitz is currently Professor of Medicine at the University of Toronto and Director of the Centre for Prognosis Studies in the Rheumatic Diseases and the University of Toronto and the Lupus Clinic at the Toronto Western Hospital.

Professor Urowitz established the University of Toronto Lupus Clinic and Lupus Databank Research Program in 1970. This extensive longitudinal database is one of the largest such databanks in the world, with over 1600 patients, and has allowed for numerous findings, which have changed the way lupus is diagnosed and managed. His teaching excellence is exemplified by his having won the outstanding clinical teacher award in the medical school for a remarkable eight times and he was the Associate Dean of Postgraduate Medical Education with the

University of Toronto during 1995–2005. This life-long commitment to medical education has resulted in his being the recipient of the Royal College of Physicians and Surgeons of Canada 2004 Duncan Graham Award.

Professor Urowitz was a founding member of the Ontario Lupus Association (now Lupus Ontario). He was president of the Lupus Council of the American Rheumatology Association. He was a founding member of the Systemic Lupus International Collaborating Clinics (SLICC) group and currently directs the SLICC Registry for Atherosclerosis. In 1995 he was the recipient of the Distinguished Rheumatologist Award of the Canadian Rheumatology Association and in 2009 he was recipient of the Evelyn V. HESS Award for outstanding contributions to lupus research, awarded by the Lupus Foundation of America. In 2013 he received the Queen's Jubilee Medal for contributions to Canada.

Professor Urowitz has been an invited speaker around the world, has published over 300 peer-reviewed papers and 40 book chapters, and has supervised the training of over 100 fellows in rheumatology, mainly in systemic lupus erythematosus.

Disclosures

None.



Professor Ronald F. van Vollenhoven, MD, PhD
The Karolinska Institute and Karolinska University Hospital, Sweden

Ronald van Vollenhoven is Professor and Chief of the Unit for Clinical Therapy Research, Inflammatory Diseases (ClinTRID) at the Karolinska Institute and Chief of the Clinical Trials Unit in Rheumatology at Karolinska University Hospital, Sweden. He received his MD and PhD from the University of Leiden, The Netherlands. After graduating in 1984, he pursued immunology research at Cornell Medical College, New York, followed by specialty training in internal medicine at the State University of New York. He did a fellowship in rheumatology at Stanford University, California, and received American Board of Internal Medicine certification in both internal medicine and rheumatology. He was Assistant Professor of Medicine, then Medical Services Chief and Fellowship Director, in the Division of Immunology and Rheumatology at Stanford University. In 1998 he moved to Sweden and became Senior Physician and Chief of the Clinical Trials Unit in the Department of Rheumatology at the Karolinska University Hospital; he was appointed to his current position in 2010.

Professor van Vollenhoven is Editor-in-Chief of *European Musculoskeletal Review*, a member of several Editorial Boards, including *Annals of the Rheumatic Diseases*, Chair of the Swedish health economics working group (HeraS) and co-founder of the International Registry for Biologics In Systemic lupus erythematosus (IRBIS) and of the NORD-STAR collaboration for Nordic trials in the rheumatic diseases.

Professor van Vollenhoven's research interests focus on the development and systematic evaluation of biological and immunomodulatory treatments for rheumatic diseases, including clinical efficacy, pharmacology, outcomes, and pharmacoeconomics. He has been Principal Investigator in many clinical trials of novel therapies in rheumatic diseases. He has published over 150 original papers, book chapters and reviews, and is editor of the textbook 'Targeted Treatment of the Rheumatic Diseases' and associate editor of 'Dubois' Lupus Erythematosus'.

Disclosures

Grant/Research:

Abbott, Bristol Myers Squibb, GlaxoSmithKline, Merck Sharp & Dohme, Pfizer, Roche, UCB

Consultant/Advisor:

Abbott, Bristol Myers Squibb, GlaxoSmithKline, Merck Sharp & Dohme, Pfizer, Roche, UCB

Professor van Vollenhoven is a member of the Lupus Academy Steering Committee and has been involved in the planning and development of the meeting programme and materials.



Case Study Workshop



Moderator: Professor Loreto Massardo (Chile)

Presenters: Professor Ronald F. van Vollenhoven & Professor Marta Mosca

Biologics for SLE: the future is here. When and how to use biologic therapies in clinical practice



Professor Ronald F. van Vollenhoven, MD, PhD

Case 1

A 32-year-old female was diagnosed with systemic lupus erythematosus (SLE) 8 years ago after presenting with widespread inflammatory skin rash and vasculitis changes on the fingers and toes, arthritis, alopecia, normocytic anaemia, elevated acute phase reactants, positive ANA, anti-ds-DNA, SSA, SSB, and very low complement. The patient never had renal involvement and has been treated with glucocorticoids in the dose range 10–30 mg/d, antimalarials and azathioprine. Despite these medications, moderate lupus activity persists. Her clinical course was complicated by multiple infections, some very severe (i.e. bacterial meningitis and pneumococcal sepsis). Evaluation for underlying immune deficiency was negative.

What is the best course of treatment for this patient with typical smoldering non-renal lupus? Consider the possibility of biologics treatment.



Case 2

A 35-year-old female with was diagnosed with SLE 10 years ago on the basis of malar rash, arthritis, an episode of pleurisy, alopecia, anaemia, ANA, SSA, and SSB. She was treated with low-dose glucocorticoids and antimalarials. About 1 year ago she presented with progressively worsening general symptoms. Evaluation revealed mild proteinuria (350 mg/day) and erythrocyturia, and positive anti-DNA antibodies and glomerular filtration rate (GFR), by iohexole clearance, is 77 ml/min. A renal biopsy showed extensive membrano-proliferative glomerulonephritis with high activity and moderate chronicity. Treatment with cyclophosphamide in monthly IV boluses was initiated. After six infusions, clinical improvement was marginal and urinary abnormalities persist and GFR decreased to 64 mg/min. Repeat renal biopsy showed no improvement of the renal pathology.

What treatment options, including biologics, should be considered for this patient?

Case 3

A 19-year-old female was diagnosed with SLE 3 years ago on the basis of acute cutaneous lupus, oral ulcers, lymphadenopathy, arthritis, ANA, anti-DNA, anti-nucleosome antibodies, and hypocomplementaemia. She was treated with glucocorticoids, antimalarials and azathioprine, resulting in partial resolution of symptoms. However, she suffers from persistent generalised symptoms with extreme fatigue, arthralgias, myalgias, and needs 10 mg/day prednisone to function; even at that dose anaemia, elevated anti-DNA (1:100 Crithidia), and hypocomplementaemia persisted.

What treatment options, including biologics, should be considered for this patient?

Professor Marta Mosca, MD

Case 4

A 29-year-old patient presented with diffuse subacute cutaneous lupus, arthritis in her wrist, and haemolytic anaemia. She wanted to become pregnant and, therefore, could not be treated with teratogenic drugs. She was treated with high-dose corticosteroids and azathioprine with initial remission of her manifestations followed by flaring with steroid tapering below 12 mg/day. After 8 months she was given methotrexate and a complete response of cutaneous manifestations was obtained. Arthritis in her wrists has persisted and she continues using steroids >16 mg/day. She is cushingoid. Patient has reported losing her job, increased in weight, and is unhappy with delayed pregnancy.

Case 5

A Caucasian female was diagnosed with SLE in 1992 based on malar rash, arthritis, pericarditis and severe thrombocytopenia (10,000 plt). She was treated with corticosteroids, antimalarials and azathioprine until 1998. She remained in remission until April 2003, when she presented with fever, pleuritis, acute diffuse rash, anaemia and hypocomplementaemia; corticosteroids, antimalarial drugs and azathioprine are subsequently reintroduced. In May 2004, she exhibited a persistently active non-erosive arthritis; azathioprine is changed to methotrexate. In March 2006, she presented with arthralgias, hypocomplementaemia, proteinuria (approximately 2 g/24 hrs) with urinary casts; a renal biopsy revealed diffuse proliferative glomerulonephritis so treatment in line with the EuroLupus protocol was initiated. In October 2008, she had a renal flare and treatment with NIH protocol was initiated followed by mycophenolate mofetil. Between 2009 and 2012 she had serum creatinine 1.8 mg/dL, proteinuria 1 mg/24 hrs, relapsing-remitting arthritis and relapsing-remitting cutaneous manifestations, so treatment was given with adjusted doses of corticosteroids, antimalarials and methotrexate. Best control of disease activity was achieved so no further changes in treatment were made. At 38-years-old (and with a disease duration of 20 years) the patient exhibits kidney, articular deformities (Jaccoud's arthropathy) and osteoporosis (no fractures).

Case 6

A 17-year-old patient was diagnosed with SLE 4 months ago after presenting with malar rash, joint involvement, leucopenia, positive ANA, positive anti-ds-DNA and anticardiolipin antibodies (low titre). She started treatment with medium-dose corticosteroid and antimalarials with good response, but still she complains of some joint pain (with mild synovitis on ultrasound) and fatigue.

Further Reading

1. Furie R, Petri M, Zamani O, *et al.* A phase III, randomized, placebo-controlled study of belimumab, a monoclonal antibody that inhibits B lymphocyte stimulator, in patients with systemic lupus erythematosus. *Arthritis Rheum* 2011;63:3918–30.
2. van Vollenhoven RF, Gunnarsson I, Weilin-Henriksson E, *et al.* Biopsy-verified response of severe lupus nephritis to treatment with rituximab (anti-CD20 monoclonal antibody) plus cyclophosphamide after biopsy-documented failure to respond to cyclophosphamide alone. *Scand J Rheumatol* 2004;33:423–7.
3. Gunnarsson I, Sundelin B, Jonsdottir T, Jacobson SH, Henriksson EW, van Vollenhoven RF. Histopathologic and clinical outcome of rituximab treatment in patients with cyclophosphamide-resistant proliferative lupus nephritis. *Arthritis Rheum* 2007;56:1263–72.
4. Bertsias G, Ioannidis JP, Boletis J, *et al.* EULAR recommendations for the management of systemic lupus erythematosus. Report of a Task Force of the EULAR Standing Committee for International Clinical Studies Including Therapeutics. *Ann Rheum Dis* 2008;67:195–205.
5. Mosca M, Tani C, Aringer M, *et al.* European League Against Rheumatism recommendations for monitoring patients with systemic lupus erythematosus in clinical practice and in observational studies. *Ann Rheum Dis* 2010;69:1269–74.
6. Gunnarsson I, van Vollenhoven RF. Biologics for the treatment of systemic lupus erythematosus? *Ann Med* 2012;44:225–32.
7. van Vollenhoven RF, Petri MA, Cervera R, *et al.* Belimumab in the treatment of systemic lupus erythematosus: high disease activity predictors of response. *Ann Rheum Dis* 2012;71:1343–9.

Learning Objectives

At the end of the workshops, participants will be able to:

- Name the biologic therapies available for the treatment of SLE.
- Evaluate targets for treatment of SLE patients.
- Critically evaluate data needed to define when these therapies should be considered in routine clinical practice.



Notes

Lined area for taking notes on page 48.

Notes

Lined area for taking notes on page 49.

