EULAR HIGHLIGHTS

GROUP PHOTO OF EMEUNET WORKING GROUP MEMBERS AT THIS YEAR'S EULAR CONGRESS IN ROME

EULAR 2015 ROME
- Oral presentations and posters
- Abstract Award winners
- Mentor-mentee meetings
- EULAR Ambassador programme
- 2nd Country Liaison Meeting
- Impressions from EULAR 2015
- EMEUNET observership

UPCOMING EVENTS

EULAR POSTGRADUATE COURSE

TWITTER AND FACEBOOK CONTEST WINNERS
Dear young rheumatologists and researchers in rheumatology,

We are happy to present you a new issue of EMEUNews about the Highlights of this year’s EULAR annual meeting.

The EULAR 2015 Congress was a great scientific event and in this issue we provide a selection of oral presentations and posters that have been presented in the various clinical and research areas of our discipline. The selection is totally personal and therefore very limited and incomplete, but it still might give an overview of hot topics that have been discussed in each field.

In addition we included impressions of the events organized by EMEUNET.

EULAR Congress was also an opportunity to meet and have fun! As last year, in addition to the traditional EMEUNET Booth, a sightseeing tour to enjoy together the beauties of Rome and Rome nightlife was organized and it was a great success.

EMEUNET is now active in social media hubs such as Facebook and Twitter, while maintaining the traditional website and the important physical (and personal) presence at major Rheumatology scientific events.

If this is your first contact with EMEUNET, we invite you to explore more and join us. If you are already part of our community, we kindly remind you that sharing is caring. Spread the word about our activities and work, and help us reach more young rheumatologists and researchers.

We hope that you enjoy reading this Newsletter and would be happy to receive any comments or contributions for future issues.

We wish you relaxing and pleasant summer holidays.

On behalf of the Newsletter Subgroup, João Madruga Dias, Barbara Ruaro, Mislav Radić and Alessia Alunno
In recent years advances in genetic studies and molecular biology have improved the understanding of underlying disease mechanisms and treatment respond. Investigating the biological mechanisms involved in the chronic inflammation in rheumatoid arthritis H. van Steenbergen HW. (OP0123) revealed that a variant of IL2RA - IL2RA-rs2104286, in addition to HLA-SE, is the only genetic factor associated with both radiographic joint destruction and RA-persistence. As the presence of bone marrow edema (BME) has been proved to be associated with the development of erosion in RA patients Nieuwenhuis WP. (SAT0041) studied the 1-year course and outcome of BME at bone level through determination the association between the course of BME and MRI-proven local synovitis as well as the development of erosions in the same bone. The authors investigated 59 patients with RA or undifferentiated arthritis and scanned total number 1,947 bones for presence and scores of BME, synovitis and erosions according to RAMRIS. It has been found that BME frequently persists during the first year and that persistent BME was strongly associated with erosive progression in the same bone, independent of local synovitis. No independent association was observed for persistent synovitis. These findings were relevant for the comprehension on the development of erosions in RA. The therapeutic response to anti-TNF drugs in RA was studied by Tornero J. (OP0126) thought conducting a GWAS. A newly described genetic region MED15 has been found to be related to the treatment respond to etanercept. Romanowska-Próchnicka K. (SAT0049) investigated weather changes in bone turnover activity markers as OPG and sRANKL during different treatment regimen including the use of conventional as well as biological DMARDs could help with evaluating the treatment effectiveness in RA. The Authors found decreased levels of sRANKL/OPG in all groups of RA patients treated with various therapies compared to DMARDs and suggested the usefulness of such parameters in the daily clinical practice. The advances in drug development offer newer treatment strategies including the use of small molecule inhibitors to protein kinases that suppress multiple intracellular signals simultaneously and have already proved clinical efficacy. The latter was confirm by Llop-Guevara A. (THU0044) in murine model of arthritis with the use of dual JAK/SYK inhibition. The authors proved that the simultaneous use of a selective JAK (tofacitinib) and a SYK (PRT207) kinase inhibitors has better effect on disease course than the single kinase inhibition with no increased immunotoxicity.
Nayar S. (SAT0005) demonstrated the crucial involvement of IL-22 in ectopic lymphoid neogenesis in a mouse model of Sjögren’s syndrome. In fact, IL-22 absence or blocking impairs the production of key lymphoid chemokines, including CXCL13 and CXCL12 and leads to reduced B cell accumulation within the ectopic lymphoid structures (ELS) and abolition of autoantibody production. IL-17 is another key cytokine in ectopic lymphoneogenesis. Decourcy J (OP0117) reported that SNARE Syntaxin11 (STX11), a crucial molecule in Th17 cell differentiation, is upregulated within ELS in rheumatoid arthritis (RA) synovium and appears therefore important in such scenario. Ohl K. (FRI0382) shed some light on the fate of pathogenic double-negative T cells (DNTs) in SLE. B6/lpr CXCR5 KO mice display reduced proportions of DNTs in peripheral lymphoid organs. Since DNTs express CXCR5, namely CXCL13 ligand, on their surface it is conceivable that this axis is involved in DNT cell migration in target tissues of the disease and may be targeted for therapeutic purposes. Miyabe C. (OP0273) reported interesting results about the role of tocilizumab (TCZ) on T-cell subsets balance in giant cell arteritis. Patients in remission with TCZ displayed higher percentages of regulatory T (Treg) cells compared to those in remission with steroids and those with active disease. Although Th1 and Th17 cells were not affected by TCZ, this compound appears to induce a rebalance between Treg and T effector cells that is associated with good clinical response. Chighizola C. (OP0285) provided the first evidence of a pathogenic role for immune complexes (ICs) containing specific autoantibodies in systemic sclerosis (SSc). In fact, the stimulation of normal skin fibroblasts with such pathologic IC isolated from the serum of scleroderma patients, led to a significant increase in the gene expression levels of IFN-α and IFN-β and to the activation of p38-MAPK, NFκB and SAPK-JNK. This activated phenotype is crucial in the induction phase of scleroderma. Kragstrup TW (SAT0003) identified a link between IL-20R axis and radiographic progression as well autoantibodies in early RA. Such axis, including IL-19, IL-20, IL-24, IL-20R1 and IL-20R2, is normally involved in tissue homeostasis but not in immune response and is markedly overexpressed during early RA. Hence its targeting for therapeutic purposes may attenuate radiographic progression without affecting the normal immune response in seropositive RA. Tomcik M. (FRI0435) presented data supporting a possible pathogenic role of IL-35 in SSc. This cytokine is increased in serum and skin of patients with SSc and serum concentration is inversely correlated with disease duration. In addition IL-35 is up-regulated by TGF-β and is able to induce an activated phenotype in resting fibroblasts and to enhance the release of collagen.
Studies on historical RA cohorts have consistently reported increased cardiovascular risk. Whether modern treat-to-target approaches ameliorate this risk is uncertain. Holmqvist M. (OP0162) have assessed this question using data from 13,128 RA patients and 113,990 matched general population comparators. Their analysis revealed a hazard ratio of 1.46 for a first time acute coronary syndrome in RA patients. This risk was unchanged between patients diagnosed 2007-12 and 1997-2001. The excess mortality in RA has often been attributed to this increased risk of cardiovascular disease. Lindhardsen J. (OP0046) however shed new light on this through a study of the entire adult Danish population. Their data confirm increased all-cause mortality in RA patients (39%) but reveal that while cardiovascular disease and cancer are the most common causes of death in RA, mortality due to infections and lung disease was increased to a greater extent. The importance of achieving early sustained remission in RA was once again highlighted by Ajeganova S. (OP0183). Using the BARFOT early RA cohort they demonstrated that those with persistent disease (HR 1.9 (1.1 to 3.3)) and those in remission at only one visit (HR 1.8 (1.03 to 3.3)) had increased mortality compared to those in sustained remission over a 10-year follow-up. On a positive note a study by Lu L. (OP0176) demonstrated an improved survival of RA patients comparing those diagnosed 1999-2005 and 2006-2012 with corresponding absolute mortality rate differences of 9.7 (95% CI, 7.2-12.2) cases and 4.7 (95% CI, 2.9-6.4) cases per 1000 person-years compared to the general population. A 10 year follow-up of the BeST study reported by Markusse I. (OP0048) was even more positive in this regard with RA patients having a survival rate comparable to the general Dutch population, albeit from the assessment of a smaller cohort with reduced power to detect differences. Verschueren P. (OP0180) evaluated 52 week results from the high-risk group in the CareRA trial to assess if initial combination DMARD and glucocorticoids was superior to initial methotrexate and glucocorticoids. The results show comparable efficacy between the groups with less side effects with methotrexate monotherapy. In addition they confirm that the initial prednisolone dose could be reduced to 30mg with no loss of efficacy. A small note of caution was sounded by an analysis of the tREACH trial Reported by Kuijper TM. (OP0030) which showed an increased HAQ score, but no difference in other outcome measures, in initial methotrexate monotherapy compared to DMARD triple therapy.
Although TNF inhibitors (TNFi) are efficacious in the majority of patients, about 25% of TNFi-treated patients do not show a significant clinical improvement. The high costs and alternative biologicals of similar efficacy raise the need for biomarkers of response to TNFi therapy. Tornero J. (OP00126) addressed this issue and conducted a Genome-Wide Association Study (GWAS) to identify the genetic variation associated with the response to TNFi therapy in 372 RA patients. Of the 3 SNPs found to be significantly correlated with clinical response, MED15 was associated with response to etanercept, MAFB with response to etanercept and infliximab, and ARMC2 with global response to TNFi therapy. This work provides interesting data on pharmacogenetics potentially contributing to patient-tailored therapies.

In Rheumatology practice often the question arises whether TNFi therapy can be tapered when DAS28 low disease activity (LDA) or remission is achieved. Galloway JB. (SAT0150) presented data of the 12-month multicenter, randomised controlled OPTTIRA-trial designed to evaluate if reducing TNFi (either etanercept or adalimumab) cause a loss of stable LDA (DAS28 < 3.2 over 3 months) in RA patients also receiving a synthetic DMARD. Over the first six months of the study, flares (increase in DAS28 ≥ 0.6 plus ≥ 1 swollen joints of 66 joints) occurred in 14% of patients who stayed on the same TNF inhibitors dose, compared to a similar proportion of 13% in those patients for whom the dose was reduced by 1/3, indicating that good responses are maintained after dose tapering by one-third. A 2/3 dose reduction increased the odds of a flare occurring by four times compared with a 1/3 dose reduction, however, these patients responded to restarting anti-TNF treatment and similar HAQ scores like the other groups. Hence, lowering TNFi maintenance dose seems to be a feasible approach, which could enhance cost-effectiveness of TNF-blockers. Similar Ghiti Moghadam M. (SAT0157) evaluated the effects of stopping TNFi in a large multicenter open-label RCT of RA patients with stable LDA (19%) or remission (81%), which were randomized to stop (n=531) or continue their current TNF inhibitors (n=286). Significantly more patients in the stop group experienced a DAS28 flare versus the continuation group at 6 (29% vs 19%) and 12 months (41 vs 14%). However, of the patients that restarted TNFi within the first 26 weeks after stopping, already 83% had regained LDA six months later. The data suggest that TNFi can be restarted effectively.
Fortunately, new exciting data keep emerging of alternative drugs to TNF blockers in the field of RA. Baricitinib, an oral JAK1/JAK2 inhibitor, was shown to be effective in two phase 3 studies of active RA patients with inadequate response (IR) to conventional DMARDs or TNF-inhibitors. For the cDMARD-IR population, Dougados M. (LB0001) et al reported ACR20/50 responses of 62%/34% for baricitinib 4mg (once daily) vs. 40%/13% for placebo (p<0.001) at week 12 and through week 24, with significant improvements also seen in function and radiographic progression (p<0.01). Adverse events and tolerability were overall similar between groups, although there was one case of tuberculosis and one non-melanoma skin cancer (NMSC) in the baricitinib 4mg group. As for TNFi-IR patients, Genovese M. (OP0029) presented similar findings, with ACR20/50 responses of 55%/28% for baricitinib 4mg vs. 27%/8% for placebo (p<0.001) at week 12, that persisted until week 24. Adverse events were similar in all groups, but there were two cases of NMSC and two major cardiovascular events in the baricitinib 4mg-treated patients. Burmester G. (OP0034) presented the results of a phase IIb RCT of mavrilimumab (a GM-CSF receptor-alpha inhibitor) in active DMARD-IR RA patients. At weeks 12 and 24, a statistically significant difference in DAS28-CRP change from baseline (p<0.001) was observed for all dosages of mavrilimumab vs. placebo. There was a dosage response association across primary and secondary endpoints, with ACR20 responses at 24 weeks of 73.4%, 61.2% and 50.6% for mavrilimumab 150mg, 100mg and 30mg, respectively, vs. 24.7% in the placebo group. There were no safety signals reported, with minor adverse events frequency similar in all groups, only one serious infection in the treated groups (30mg), no deaths and no relationship with dosage. In a negative study presented by Smolen J. (OP0031) adding ustekinumab (anti-IL-12/23p40) or guselkumab (anti-IL-23p19) to methotrexate in active RA patients lacked a significant effect. ACR20, ACR50 and ACR70 responses were non-significantly different in the ustekinumab/guselkumab groups compared to placebo at weeks 12/28. Finally, Bijlsma J. (OP0033) showed that in early RA (<1 year) DMARD-naïve patients a treat-to-target approach with tocilizumab ± MTX significantly increased sustained remission at 2 years compared to MTX monotherapy: 86% for TCZ+MTX, 84% for TCZ and 44% for MTX (p<0.001 vs. both TCZ groups). There were no safety differences among arms.
The scientific interest toward psoriasis (PsO) and psoriatic arthritis (PsA) upswings from year to year. A quite high number of oral and poster presentations concerning basic and translational research, new insights in diagnostic and prognostic markers, treatment of PsA and PsO had been demonstrated during EULAR 2015. Budu-Aggrey A. (OP0128) had reported genome wide significant association of PTPN22 to PsA susceptibility with no association to PsO alone. O’Rielly DD. (OP0200) demonstrated the different pattern of DNA methylation pattern between anti-TNF therapy responders and secondary failures. Tan WS. (OP0208) reported that in early PsA clinical response to DMARDs is accompanied by and correlated with a reduction in synovial CD3 and CD68SL. A possible role of physical trauma in development of PsA was suggested by Thorarensen S. (OP0311). Despite increasing awareness of PsA among physicians the prevalence of undiagnosed PsA remains high. As presented by Rockberg J. (OP0002) relying on retrospective cohort study, most PsA patients receive the PsO diagnosis on average 3.8 years prior to PsA diagnosis. Th SENSOR study reported by van der Ven M. (FRI0562) indicated the importance of early ultrasound examination which revealed inflammatory changes in tendons in 95% of primary care PsO patients. A prospective cross-sectional study based on high resolution quantitative tomography of joints by Simon D. (FRI0560) had shown that PsA patients show more anabolic and catabolic changes compared with PsO. Along with presentations of agents with already proofed efficacy and safety in PsA (methotrexate, anti-TNF-agents), a special focus was made on studies dedicated to novel targeted therapies in PsA and PsO. The results of FUTURE 1 and 2, phase III randomized multicenter, double-blind placebo-controlled studies concerning efficacy of secukinumab, a human anti-IL-17A monoclonal antibody, were presented in several oral and poster presentations. Both FUTURE 1 and 2, reported by Van Der Heijde D. (THU0414) and Kavanaugh A. (THU0411) respectively, had shown efficacy either in ant-TNF-IR or in anti-TNF-naïve patients. Gottlieb A. (THU0418) reported that secukinumab reduces PsO burden in PsA as observed in the FUTURE 2 trial. Apremilast, an oral phosphodiesterase 4 inhibitor, had shown efficacy and safety during 104-week treatment in the PALACE 3 and PALACE 4 trials, presented by Edwards C. (THU0416) and Wells A. (SAT0562), improving disease activity, physical function, status of dactylitis and enthesitis in PsA. According to results of ESTEEM 1and 2 reported by Papp K. (THU0413) it is also effective in nail and scalp PsO. Kavanaugh A. (OP 0174) presented the beneficial effects of ustekinumab, a human monoclonal antibody against IL12 and IL23, in axial and peripheral PsA from the PSUMMIT1 study.
Barbara Ruaro

MD, currently works in the Research Laboratory and Academic Division of Clinical Rheumatology, Department of Internal Medicine, University of Genova, Italy. Her interests are connective tissue diseases, spondyloarthritis and ultrasonography in rheumatology.

Lindstrom U. (OP0275) evaluated if birth characteristics and childhood hospitalization due to infections predict a diagnosis of Ankylosing Spondylitis (AS). They have evaluated birth weight, gestational age, type of birth (single/multiple), number of older siblings and exposure to infections. They have also included in the analysis: mothers’ marital status, mothers’ birth country and size of the delivery unit. Authors showed that a low birth weight, having older siblings and having been hospitalized due to infection during age 5-16 years may be important factors in the pathogenesis of AS. The aim of the study by Ciccia F. (OP0205) was to investigate the ileal localization of bacteria in AS patients and their relationship with local and systemic immune responses. At the end of their study they have observed that bacterial ileitis, accompanied by damaged intestinal mucosal barrier, characterizes AS patients, furthermore i-FABP and LPS are increased in the peripheral blood of AS patients and associated with the down-regulation of LPS co-receptor CD14 and with an anergic monocyte phenotype. They also show that a dysregulated autophagy response is present in the peripheral blood of AS patients. O’Rielly D. (OP0206) examined the recently identified epigenetic markers in an independent AS cohort to assess radiographic progression and determine if an interaction exists with smoking status. The study demonstrated how epigenetic factors can influence radiographic progression in AS and the results reveal a significant association between smoking, methylation status and radiographic progression in AS. The aim of the study of Cypers H. (SAT0248) was to assess whether calgranulins can be used as biomarkers for microscopic bowel inflammation in SpA. Authors demonstrated that the calgranulin levels, both systemically and locally, reflected the presence of acute microscopic bowel inflammation in SpA. These results also illustrate the high sensitivity of calgranulin, that detects inflammation present only on a subclinical level. In conclusion calgranulins may be the first surrogate markers for subclinical bowel inflammation in SpA, allowing for more individually tailored diagnostic and therapeutic decision making. In their study Paolino S. (FR10232) investigated the relationship between skeletal microarchitecture, bone density as well as between vertebral fractures, disease activity and functional ability in AS. Authors demonstrated a higher BMD value in AS but a poor quality of bone microarchitecture that represents the bone “paradox” of the disease. They show also that the trabecular bone score (TBS) is a clinical tool/marker that reflects the trabecular bone structure and could provide skeletal informations, that are not captured from the standard BMD measurement at least in AS with vertebral fractures.
Let's talk first about the immunopathology of the lupus disease. Recent studies have suggested that increased activity of T follicular helper (Tfh) cells plays a pathogenic role in SLE. Jacquemin C (OP0009) showed that exaggerated OX40 signals promote the differentiation of human Th cells into Tfh cells in SLE. Interestingly, immune complexes (RNP/IgG anti-RNP) induce monocytes to express OX40L through TLR7 activation. Drugs targeting this pathway could be beneficial for human SLE. In the last NL from ACR 2014 congress, we presented data from trials evaluating the efficacy of biotherapy in lupus, but we focused only on drugs targeting the IFN-α overproduction.

What about targeting IL-6 in SLE? Smolen J. (OP0185) assessed the efficacy, safety, and tolerability of PF-04236921, a fully human IgG2 that neutralizes IL-6 activity, in active SLE. They randomized 183 subjects with active SLE to receive 3 doses of PF-04236921 (10, 50, or 200mg) or placebo given SC every 8 weeks. At W24, there were more responders in the 10mg group vs placebo for the SRI (p=0.076) and BICLA (p=0.026). Unexpectedly, there were no significant differences in the 50mg group vs placebo for the SRI (p=0.528) or BICLA (p=0.1). For the authors, a total blocking of the IL-6 pathway could impact some regulatory function of this cytokine. Of note, the 200mg group was excluded from the primary analysis due to premature termination of dose. In a post-hoc subgroup analysis, the authors found a significant effect size for the SRI and BICLA for the 10mg group vs placebo in subjects with high baseline disease activity (SLEDAI>10, detectable anti-dsDNA, low complement, or prednisone>7.5 mg/day). These results support the pursuit of the development of this drug in SLE.

One-year proteinuria drop predicts long-term renal outcome in lupus nephritis (LN) as suggested by data from the Euro-LN trial. New analysis from the MAINTAIN nephritis trial by Tamirou F. (OP0265) indicated that a proteinuria cut-off level of 0.7 g/24h after 12 months of treatment is associated with a good renal outcome, and therefore could be used as primary outcome in LN induction trials. Impossible to talk about lupus without talking about HCQ! Durcan LJ (OP0187) confirmed results from the PLUS study. They showed that dosage of HCQ blood levels ([HCQ]) in SLE is important in improving adherence. Dosing based on weight (with a cap at 400mg) rather than height does not increase [HCQ]. In the same session, Sciascia S. (OP0188) confirmed that the use of HCQ during pregnancy is safe and have a beneficial impact on pregnancy outcome in women with antiphospholipid antibodies when associated with the conventional treatment.
New findings and treatment options in the field of systemic sclerosis (SSc), myositis and vasculitis are quite promising. Prof Specks U. (SP0007) has reviewed the medical management of diffuse alveolar hemorrhage (DAH) in light of the results of randomized controlled trials and recent cohort studies with particular emphasis on the efficacy of rituximab (RTX) as primary remission induction agent and the role of plasma exchange as an adjunct. He has concluded that RTX is an effective remission induction agent in patients with DAH caused by granulomatosis with polyangiitis and microscopic polyangiitis, regardless of the severity of DAH. SSc is a debilitating disease with limited treatment options. Data indicate a key role for IL-6 in the pathogenesis of SSc. Khanna D. (OP0054) have showed the safety and efficacy of the IL-6R inhibitor tocilizumab (TCZ) in SSc treatment. In this first double-blind, placebo-controlled, phase 2, proof-of-concept study, the effect of inhibiting IL-6 in SSc was explored. Pts ≥18 y with active disease (1980 ACR criteria, ≤5 y disease duration, modified Rodnan skin score (mRSS) 15-40, and elevated acute-phase reactants) were randomized 1:1 to TCZ 162 mg or placebo (PBO) subcutaneously (SC) wkly for 48 weeks. Primary end point was mean change in mRSS from baseline at week 24. Mean change in mRSS at week 48, patient-reported outcomes (PROs), and pulmonary function at week 48 were secondary/exploratory measures. Treatment with TCZ resulted in consistent, but not statistically significant, improvements in skin sclerosis at weeks 24 and 48 and in PROs (HAQ-DI, patient global assessment VAS, and FACIT-fatigue) at week 48. A trend toward less FVC decline with TCZ than with placebo noted at week 24 persisted at week 48. Observed adverse events were consistent with SSc complications and the safety profile of TCZ. Overall, the effect of TCZ on skin sclerosis, PROs, and pulmonary function and the observed safety profile suggest a positive risk/benefit profile for TCZ in SSc and support further evaluation of TCZ in SSc. In the small pilot study with 20 patients, Tjärnlund A. (SAT0436) reported that abatacept in treatment of polymyositis and dermatomyositis patients resulted in improvement of muscle performance and health-related quality of life in half of the patients, and warrants further investigation with larger number of patients. Finally, angiotensin receptor blockers (ATRB) and/or endothelin receptor blockers (ETRB) may exhibit beneficial effects on lung function in SSc patients. Radić M. (SAT0434) have analysed EUSTAR database to evaluate the possible benefit of simultaneous treatment with ETRB and ATRB. The data do not indicate a potentially beneficial effect of ATRB or ETRB on lung function parameters, especially on DLCO values. This study is limited by its size, observational design and different disease activity and severity between groups. Further studies are warranted to elucidate the role of angiotensin and endothelin receptor blockade in possible prevention of lung function deterioration.
Using data from the ASSERT trial on infliximab in patients with ankylosing spondylitis (AS), Machado P. (OP0041) explored the associations between inflammation and fat deposition and development of radiographic syndesmophytes. Both inflammation and fat deposition predicted development of syndesmophytes, and especially if inflammation preceded fat deposition. However, this typical sequence could only partially explain the development of new syndesmophytes, of which also developed in units signs of inflammation or fat deposition. Maksymowych W. (OP0043) evaluated predictors of sustained remission on anti-TNF in 323 patients with AS. Smoking was the major factor preventing attainment of sustained remission. Sustained remission was more likely in patients who were young, had normalized CRP early after treatment and with lower baseline ASDAS. No MRI parameters were significantly associated with sustained remission in multivariate analyses. In a Dutch study (OP0218) 1.5T contrast-enhanced MRI of the dominant MCP, wrist and MTP was performed in 193 persons from the general population with no history of arthritis, no joint symptoms the last month, and no clinically detected synovitis. The age ranged from 19-89 year. Mangrus et al. showed that MRI-detected bone marrow edema (58%), synovitis (48%) and tenosynovitis (17%) correlated with age, and were rare among people <40 years. Nieuwenhuis W. (OP0164) explored whether information obtained by extremity MRI at disease presentation could be used to identify rheumatoid arthritis (RA) among undifferentiated arthritis patients. The outcome measures were fulfilling the 1987 RA criteria or the start of disease modifying anti rheumatic drugs (DMARDS) within the first year. Adding MRI synovitis to the 2010 criteria for RA increased the sensitivity (40% to 91%), but at a cost of a considerable decrease in specificity (88% to 28%). Similar results were found for bone marrow edema and erosions. Based on the present data the Authors concluded that adding information about MRI features to the 2010 criteria does not improve the diagnostic process of RA in undifferentiated arthritis patients. In an Italian study (OP0217), 427 RA patients in clinical remission where included in the analyses. Belli et al. explored whether US findings could predict 6-month disease flare. In total 36-59 patients experienced a flare dependent on the flare definition, PD activity, but not grey-scale synovitis, was associated with risk of flare. US should therefore be taken into account in the management of patients in clinical remission. Using data from the Oslo hand OA cohort, Mathiessen A. (THU0450) explored whether US-detected osteophytes could predict development of radiographic OA five years later in joints that were with no radiographic OA at baseline. The Authors demonstrated that US-detected osteophytes were a strong predictor for the development of radiographic OA features, including both joint space narrowing and osteophytes. In addition, a significant association was found between US-detected osteophytes at baseline and the occurrence of tenderness by joint palpation at follow-up. These results support the use of US as a promising tool for early detection of hand OA.
Lucía Silva

MD, MSc, is a consultant rheumatologist at Complexo Hospitalario Universitario de Ferrol in Spain. Her main research interests are early arthritis, biologic therapies and systemic lupus erythematosus.

Campillo-Gimenez L. (OP0261) evaluated the inflammatory properties of four types of calcium pyrophosphate (CPP) crystals to elucidate the cellular pathways involved in IL-1β production. They found that diverse forms or CPP crystals displayed differential cellular responses. In vitro m-CPPD crystals induced a higher release of IL-1β than t-CPPD or MSU while a-CPP and m-CPPT crystals did not induce it. IL-1β production in response to m-CPPD, t-CPPD and MSU crystals significantly increased from 2 to 48 h of stimulation. Similarly, m-CPPD and t-CPPD crystals increased the expression of pro-inflammatory cytokine and COX-2 genes with a maximum effect after 24 h of stimulation. Interestingly, maximum gene induction of anti-inflammatory cytokine IL-10 occurred at 6 h of stimulation. Gout affects 1–4% of the population in developed Western countries. Nuevo J. (FRI0343) described the impact of current urate-lowering treatment (ULT) on serum uric acid (SUA), gout flares and tophi in more than 285,000 patients with established gout from four different countries. They found that current ULT with Allopurinol or Febuxostat often do not achieve recommended SUA goals and gout-related outcomes with many patients experiencing elevated SUA levels. They found evidence of continued flares and tophus in treated patients. They think that more diligent SUA testing, as well as newer treatment approaches are needed to further improve outcomes and gout control for some patients. Efficacy and safety of lesinurad was evaluated in LIGHT, a multinational randomized, double-blind, placebo-controlled, 6-month phase III clinical trial by Tausche AK. (SAT0307). Gout patients with intolerance/contraindication to xanthine oxidase inhibitors and serum uric acid (SUA) ≥6.5 mg/dL were randomized to lesinurad (400 mg oral, once daily) or placebo. Significantly more patients achieved the primary endpoint (SUA <6.0 mg/dL at month 6) with lesinurad 400 mg than placebo (29.9% vs.1.9%). Discontinuation rate was greater with lesinurad 400 mg (32.7%) than placebo (15.9%). Overall adverse events (AE) rate was higher with lesinurad 400 mg, mainly due to more renal AEs. Of the 143 patients (placebo, 78; lesinurad, 65) who were enrolled in the extension study, 84 (59%) and 35 (24%) completed 6 and 12 months, respectively, prior to early study termination by the Sponsor (mean lesinurad exposure, 223 days). A total of 91 patients (64%) achieved SUA <6.0 mg/dL at some point during the extension study. AEs were similar to the lesinurad 400 mg group in the core study.
OSTEOARTHRITIS AND OSTEOPOROSIS

Marie Kostine

Two communications emphasized the importance of physical activity in osteoarthritis (OA). In a randomized, single blind trial, Wang C (OP0103) reported a similar effectiveness between Tai Chi (2x/week) and standard physical therapy (2x/week for 6 weeks followed by 6 weeks of rigorously monitored home exercise) in reducing pain and improving both physiological and psychological function in patients with knee OA. Similarly 514 patients with knee OA were randomised to physiotherapy-led exercise interventions or usual physiotherapy care (UPC) in the BEEp trial reported by Foster N. (OP0105). At month 6, around 50% of patients were categorised as treatment responders with a preference accorded to UPC, found to be cost-effective. Using data from the HOSTAS cohort (Hand OSTeoArthritis in Secondary care) and the Oslo hand OA cohort, Damman W. (OP0109) and Haugen I. (THU0466) showed that presence of synovitis on MRI at baseline for patients with hand OA is predictive of radiographic progression with a respective follow-up of 2 and 5 years. These MRI features could serve as an early biomarker to identify patients requiring efficient chondroprotective treatment. Regarding new pharmacological options for symptomatic OA, Park JK (OP0303) presented promising results from a prospective placebo-controlled, double blinded, randomised trial using GCSB-5, a mixture of 6 purified oriental herb extracts which have anti-inflammatory, analgesic and chondroprotective effects. The primary endpoint, improvement of the AUSCAN pain at Week 4, was and remained better in the GCSB-5 group compared to placebo (median -9 bs -2.2; p=0.014) with a tolerable safety profile. On the other hand, Basoski N. (OP0304) reported that the well-known hydroxychloroquine (HCQ), successfully used in mild rheumatoid arthritis and other autoimmune disorders, did not reduce pain when compared to placebo. If HCQ failed to demonstrate efficacy in hand OA, further investigation is still required in other OA phenotypes. Van der Woude D investigated in randomised controlled trials whether 6-8 weeks of knee joint distraction (KJD) could be an alternative option in young patients with knee OA, compared to high tibial osteotomy (OP0104) or total knee prosthesis (THU0442). Both knee preserving strategies led to a significant functional improvement after 1-year (WOMAC score) without difference between the two techniques, and a stepper increase of the joint space width in the KJD-group. KJD was also found comparable to total knee prosthesis after 1 year. This surprising intrinsic cartilage repair by KJD is triggered by a regenerative transcriptional response (i.e. TGF-β, Wnt, Notch) in an experimental canine model of OA presented by Mastbergen SC. (OP0147).
The usefulness of subclinical synovitis detected by Power Doppler ultrasonography (US) to predict flares has been demonstrated in adult rheumatoid arthritis patients; however, this has not been previously assessed in pediatric patients with juvenile idiopathic arthritis (JIA). Nieto-González JC. (FRI0520) presented the preliminary results of a multicentric study including 35 patients with JIA under anti-TNF-α therapy with a mean follow-up 6.5 months. During this period 8 patients (22.3%) had a flare, with a mean time to flare of 5.1 months. US did not predict flare in this cohort, but these results should be confirmed at the end of the study. Horneff G. (OP0064) analyzed the drug survival and reasons for discontinuation of therapy in 1679 JIA patients included in the BIKER registry. They found that the most common reasons for discontinuation were observed in patients with RF(+) polyarticular JIA. Etanercept was more frequently discontinued due to remission and less frequently due to inefficacy than other biologics. Scardapane A. (FRI0504) assessed the influence of TNF-α gene polymorphisms on the disease outcome and therapeutic response to anti-TNF-α drugs in JIA. They compared 74 Caucasian patients with JIA and a control group of 77 healthy children and found that JIA patients carrying the TNF-α -308 GA/AA and -238 GA genotypes presented a lower response to anti-TNF-α drugs, with a significant higher disease activity after 12 months of therapy. The clinical presentation of patients with early (before 8 years) and late (after 8 years) onset juvenile spondyloarthritis (JSpA) was compared in a retrospective study by Katsicas MM. (SAT0485). Authors included 110 patients with JSpA followed for median 7 years and found that early onset occurred in 18% and these patients presented significant differences in the articular pattern, dactylitis, uveitis and positive HLA B-27, low haemoglobin levels and raised ESR at onset, and a higher development of sacroiliitis, persistent dactylitis, radiographic bonedamage and use of biologics during the disease course. Foeldevari I. (OP0306) evaluated the difference in the presentation of diffuse and limited subtypes of juvenile systemic sclerosis (jSSc) in 39 patients enrolled in an international multicentric inception cohort (29 with diffuse jSSc and 10 with limited jSSc). Patients with diffuse jSSc were younger at onset, had more often capillary changes and active ulcerations, pulmonary hypertension and renal involvement. These characteristics of the pediatric subtypes differ from adults with SSc.
Congratulations to this year’s 12 EULAR Abstract Award winners for their outstanding contribution in the field of rheumatology. Winners were awarded by EULAR President Professor Maurizio Cutolo during the Opening Ceremony.

**BASIC SCIENCE**
- Darren O’Rielly (Canada)
- Simon Mastbergen (The Netherlands)
- Joan Wither (Canada)
- Mohit Kapoor (Canada)
- Mojca Franck-Bertoncelj (Switzerland)
- Philip Robinson (Australia)

**CLINICAL SCIENCE**
- William Tillet (United Kingdom)
- Joos Swart (The Netherlands)
- Leo Lu (United States)
- Kateri Lévesque (Canada)
- Pilar Brito-Zeron (Spain)
- Elke Theander (Sweden)
THE MENTOR-MENTEE MEETINGS AT EULAR 2015

The 4th of the mentor-mentee meetings was held at the EULAR Congress in Rome with 4 mentors (Johannes Bijlsma, Martin Rudwaleit, Ingemar Petersson and Francis Berenbaum) and 17 mentees. The meeting gave mentees the opportunity to discuss about possible career options, their research and their involvement in EULAR with leaders in the field in an informal way. The meeting was a great success and positive feedback has been collected from mentees as well as from mentors.

Your Peer Mentoring subgroup

SOME FEEDBACK FROM MENTEES:

“Great opportunity to meet with experts”

“This meeting in a small group was highlight of this year’s EULAR conference for me. Very friendly, relaxed, but still very useful.”

“Prof. Bijlsma was a good inspiration to all, relating his experiences both in science, academia and life as a whole. He offered great advice recommendations and future directions for all of us individually.”

“As one of those young researchers who always seeking guide and advice from a mentor to refine their path and focusing their efforts, I found this meeting to be part of the answers I was looking at!”

“I was already on two Mentor-mentee meetings and it is always the highlight of the EULAR meeting. You can discuss what you wish (your project, science and life as scientist :-) and even just listening to the others is interesting.”

“The mentor-mentee meeting offers valuable personal contact and discussions with experts in the rheumatology field. It offers a chance to clarify misconceptions and one sided perceptions, promotes networking and creates further opportunities for personal and community development.”
THE EULAR-EMEUNET AMBASSADOR PROGRAMME FOR FIRST TIME ATTENDEES

The EULAR-EMEUNET Ambassador Programme for first time attendees was established this year by Meghna Jani and Christian Beyer on behalf of the peer-mentoring and education subgroups. The first 30 people who expressed their interest were selected to participate. The programme was a success with lots of positive feedback from those who had the opportunity to take part.

SOME FEEDBACK FROM PARTICIPANTS:

“It was great to have someone with experience at the congress tell us about the different types of sessions and the advice given regarding the best options for each one of us.”

“We can really meet more experts and make more friends via the programme. Besides we could better organise our sessions according to the information the mentor provided.”

“Had the opportunity to meet a great mentor who also researches in a similar field. We also came from neighbouring countries which allowed us to speak in our native tongues!”

“Get useful feedback about career planning and how to choose the right path to follow to successfully reach your goal.”

“I liked the idea of having someone to guide/look after me and to meet others as I didn't know anyone from my department going to the congress.”

“The program allowed me to get along without any problems at this congress. The practical advice that we received from ambassadors was very helpful. I managed to make a clear agenda with the sessions that interested me and made the most of the time at the congress. Thanks very much to all the team.”

“A good source of information to help you make the most out of the conference.”

“Great to network with people who are active in the rheumatology community. My ambassador provided me with lots of great tips for attending EULAR, which I found really beneficial.”

“Take every opportunity to meet and network with other young professionals, they've been in your shoes in the past! They have experience of previous conferences, and have lots of tips to share with you to enable you to get the most out of your attendance.”
THE 2ND COUNTRY LIAISONS MEETING AT EULAR 2015

The EMEUNET Country Liaisons met once again this year in Rome, together with members of the Country Liaison Subgroup and of the EMEUNET Steering Committee. We took the opportunity to have an overview on our activity during the past year. The highlights included national activities organized by Country Liaisons to promote EMEUNET in 15 countries, as well as the recent Country Liaison Newsletter. Furthermore, the increasing presence of the Country Liaisons on the EMEUNET social media platforms, as well as on the new EMEUNET website, supports and promotes the Country Liaisons and their work. Once again, outstanding country liaisons were invited to share their strategy in promoting EMEUNET in their countries. This year, Sara Monti from Italy, Camille Souffir from France and Mojca Frank-Bertoncelj from Slovenia offered a very interesting feedback and ideas on expanding the network at a national level and on reaching both clinicians and basic researchers. All along, faced challenges and ways to address them were discussed.

We warmly thank everyone involved, especially the Country Liaisons, for making this possible. We are also grateful to our colleagues from the EMEUNET Newsletter, Social Media and Website Subgroups for their great collaboration and support.

Looking forward to another exciting year in the Country Liaison Team! See you in London!

your Country Liaison Subgroup
From international experience to top scored abstracts on arthritis and inflammation, from evidence based medicine to the art of writing and teaching.

The Young Rheumatologist sessions covered a wide range of topics therefore attracted not only fellows but also trained rheumatologists.

Worldwide experts in the field, residents and trainees provided their valuable contribution in making these sessions stimulating and interactive.
The EMEUNET booth has been a key meeting point for young rheumatologists to receive information on EMEUNET and collect a printed NL issue. It was also a point of contact for existing members to meet each other.

EMEUNET organized a bicycle tour of Rome to experience the stunning beauties of the eternal city.

After the tour, EMEUNET members met at a local pub to enjoy the warm weather, good food and drinks.
ESCET
EULAR STANDING COMMITTEE ON EDUCATION AND TRAINING

The ESCET business meeting took place on Thursday June 11th. Ingrid Lundberg passes on the chair position on Education and Training to Annamaria Iagnocco. EULAR goals for education and the objectives are discussed, including:

- The importance of the role of the attendees in their capacity of country representatives to effectively disseminate information about all courses EULAR has on offer, in particular the online courses, which start again in September.
- To unify and harmonise rheumatology training in Europe overall, as well as upgrading the standard of rheumatology in every country.
- The newly established US Competency Assessment two level system is explained. These two levels are: 1) Minimum competency necessary to perform full rheumatologic MSUS examination without supervision and 2) Competency necessary to teach MSUS.

EULAR grants bursaries to young fellows to attend its live courses as well as for the Congress each year.

Nada Cikes reports on the UEMS section, particularly on training requirements for rheumatology as specialty and UEMS/EBK activities, for instance on the European survey conducted. The plan for the future is to establish guidelines and promoting a unified curriculum, backed up by specific assessments.

Francisca Sivera presents the survey made among young rheumatologists across Europe.

Christian Beyer sums up the activities of EMEUNET.

As representatives of EMEUNET education subgroup, Christian Beyer, Russka Shumnalieva and Victoria Navarro attended the meeting.
ESCIR is EULAR’s Standing Committee that oversees the activities of different study groups that focus on translational and laboratory research. During the Rome congress, ESCIR held its annual business meeting and hosted a session updating on ongoing projects. In this session, Peter van der Kraan (NL) introduced the Osteoarthritis study group (SGOA) and its plan to further develop a research agenda and increase the bidirectional interest between EULAR and the osteoarthritis research community. Vanessa Smith (Be) summarized the impressive activities of the microcirculation group in its first year. The members have set up a great collaborative effort to standardize different imaging modalities. Johan Ronnelid (SE) highlighted the specific efforts of the autoantibodies study group emphasizing the direct impact on patients that the work of this study group has. Their focus on standardization and quality control of available tests is gaining additional momentum by collaborations at the EU level. In the business meeting, Prof Rik Lories (BE), chair of ESCIR, introduced Prof Xavier Mariette (F) as the chair-elect of the SC to the national delegates. Prof. Mariette will take over as chair after EULAR 2016. Rik Lories also introduced the new SGOA (Chair: Peter van der Kraan) which purpose is to create a European research network for this disease, and reports about the study group on gene and stem cell therapy therapy (Chair: Christian Jorgensen (F)), which research projects are currently included in clinical trials. Prof Costantino Pitzalis, chair of the EULAR Synovitis Study Group (ESSG), recalls the objectives of this SG mentioning the importance to establish and validate synovial ultrasound (US)-guided needle biopsy in comparison to the current gold standard procedure, namely arthroscopic biopsy. Dr. Karim Raza, chair of the Study Group for Risk Factors for RA (SGRFRA), reports about this SG and introduces the new co-chair Dr. Diane van der Woude. Dr. Francesca Barone introduces the new EULAR SG for Sjögren’s syndrome named EULAR Sjögren’s syndrome experimental and translational investigative alliance (ESSential). This SG attempts to join all clinical and basic researches on Sjögren’s syndrome in EULAR countries. Dr Johan Rönnelid reports from the Laboratory Investigation in Rheumatology SG and mentions the new collaboration with the International Federation of Clinical Chemistry (IFCC) and as well as other future projects.
CALENDAR OF UPCOMING EVENTS
SEPTEMBER 2015

11th International Congress on Systemic Lupus Erythematosus
- When: 2-6 september
- Where: Vienna, Austria
- Website: http://www.lupus2015.org

17th Asia Pacific League of Associations for Rheumatology (APLAR) Congress
- When: 6-9 september
- Where: Chennai, India
- Website: http://aplar2015.com

Rheumatology & Aging Conference 2015
- When: 8-11 september
- Where: Cambridge, United Kingdom
- Website: http://www.zingconferences.com/conferences/rheumatology-aging-conference-2015/

8th International Congress of Familial Mediterranean Fever and Systemic Autoinflammatory Diseases
- When: 30 september-3 october
- Where: Dresden, Germany
- Website: http://www.issaid2015-congress.de/
THE EULAR POSTGRADUATE COURSE IN RHEUMATOLOGY

With its postgraduate course, EULAR seeks to update the professional knowledge of young rheumatologists from around the world, whilst giving the participants the opportunity to meet and exchange ideas and experiences.

Target participants
Fellows/residents in rheumatology (particularly those preparing for certifying examinations and those who are registered for the on-line EULAR course)
Clinician scientists in rheumatology
Newly certified rheumatologists as well as more experienced rheumatologists who need to remain up-to-date in rheumatology and immunology

Course description
A unique 3 (Sunday lunchtime through Wednesday lunchtime) refresher, "crash course", in clinical and experimental rheumatology taught by selected faculty of European experts in a very interactive and cordial environment. Participants have the opportunity to meet the experts in an informal setting and network with trainees and rheumatologists from all over the world.

Interactive workshop sessions
Participants may choose between the following workshops (1 choice)
How to design a clinical trial in rheumatic diseases
How to study adverse events of new therapies
How to design a study to understand risk factors
How to design a study to define critical molecular pathways in a rheumatic disease
And can sign up for these 2 workshops
How to review an abstract
How to write a paper

Next EULAR Postgraduate Course will take place in Prague 18-21 October 2015

The registration process has started and attendees can also apply for a EULAR bursary to attend this course.

For any additional information and to apply visit: http://www.eular.org/edu_course_postgraduate.cfm
Winner of Facebook Contest

Congratulations to Emma Garcia Melchor (Spain) for winning the EMEUNET Facebook contest during EULAR. There prize is an EULAR textbook.

More information about EMEUNET can be found in http://emeunet.eular.org

You can also reach us through the following email emeunet@eular.ch

Follow us on facebook and twitter:
www.facebook.com/EMEUNET
www.twitter.com/EMEUNET