A Change in Leadership

After serving a very successful and productive 3 year term as GRAPPA President, Dr. Philip Helliwell turned over the reins to Dr. Kristina Callis Duffin. We wish to congratulate and thank Dr. Helliwell for his excellent leadership and service.
This year, 54 abstracts from 37 countries were submitted for review by 6 senior GRAPPA members, and 27 trainees were supported to attend. Congratulations to the top 5 selected for podium presentations. The discussion, moderated by Chris Ritchlin and Wolf-Henning Boehncke, was very robust and interactive.

**Adam Ford** (University of Southern California, mentor: April Armstrong) Care for improving quality of life and mental health in psoriasis: results from a randomized controlled equivalency trial; **Déborah Puyraimond-Zemmour** (unable to attend, presented by Ana-Maria Orbai, Sorbonne University, France, mentor: Laure Gossec) How to define remission and low disease activity in psoriatic arthritis? An analysis of 439 patients with a double perspective; **Kanika Sood** (VA Sacramento Medical Center, mentor: Siba Raychaudhuri) Tc17 CD8+ MAIT cells: A New Dimension for the IL-23/IL-17 Cytokine Network in Psoriatic Arthritis; **Enrico Mascia** (University of Cagliari, Italy, mentor: Alberto Cauli) Genetic variants in the TNF-alpha region: a novel biomarker of clinical response to anti-TNF-alpha drugs in PsA patients; **Sebastian Yu** (University of California, Davis, mentor: Samuel T. Hwang) A Western high fat, high glucose diet predisposes mice to enhanced susceptibility to imiquimod-induced psoriatic skin changes compared to a high fat alone- and control-diets.

**CRN** Collaborative Research Network Strategic plan and breakouts

Oliver Fitzgerald At last year’s meeting, the CRN held 2 post-meeting sessions to develop their strategic plan. An outline has been iterated over the last year.

Breakouts during the Friday session focused on reviewing the short and long term goals, governance, SWOT analysis, target customers, patient participation, strategic plan, operations and funding of this very large scale project.

Following the annual meeting, the CRN then held a planning meeting. Keynote speaker, Dr. Vivian Bykerk from New York, spoke on her experience as one of the leading investigators on the AMP programme on Rheumatoid Arthritis and SLE. Dr. Bykerk described the breadth of the program and the challenges in making the program successful. This was followed by further presentations and discussions around 3 key areas of need in PsA: (1) Identifying early which patients are likely to progress radiographically (PsA BioDAM project); (2) How do we predict which patients with skin psoriasis are likely to develop PsA; and (3) How do we predict which patients are likely to respond to which treatment? Significant progress is being made with each of these project areas with some results are likely to emerge over the next year.
Psoriasis is now firmly associated with an elevated risk of both subclinical cardiovascular disease (CVD) and increased CV events. Using advanced imaging techniques, Dr. Mehta from the NHLBI provided context of use of FDG imaging in PET to detect early vascular diseases. In the NIH-funded Psoriasis Atherosclerosis and Cardiometabolic Disease Initiative (PACI) study, Dr. Mehta’s team is dissecting the link between psoriasis and early atherosclerosis. His efforts have demonstrated that psoriasis is associated with an increased level of aortic vascular inflammation by 18F- FDG PET/CT, which is a reliable surrogate marker for prospective cardiovascular events, and that increased vascular inflammation is directly associated with skin disease severity. In an observational longitudinal study, the vascular inflammation in psoriasis was shown to be attenuated concomitant with improved skin disease severity following biologic therapy. While a subsequent randomized trial by Dr. Mehta did not show the same impact, it provided promising findings demonstrating an improvement in GlycA, a comprehensive blood biomarker of inflammation and CVD following treatment with anti-TNF therapy over 1 year. Furthermore, vascular inflammation in psoriasis was shown to be associated with the extent of lipid-rich non-calcified plaque burden in coronary arteries. Collectively, Dr. Mehta presented data demonstrating increased vascular inflammation and coronary disease when FDG-PET is utilized in patients with psoriasis.

Vascular complications of PsO and PsA Lihi Eder Dr. Eder presented the result of her research aimed to address gaps in care related to CV morbidity in psoriatic patients. The use of carotid ultrasound to assess the burden of atherosclerosis could help in identifying high risk of CV events. Combining imaging data with traditional CV risk scores (e.g. Framingham risk score) improves prediction of CV events and may be used in the clinic to assist in treatment decisions. Another potential method for CV risk prediction is metabolomics. Detailed metabolomic analysis showed significant differences in atherogenic lipid particles, amino acids and free fatty acids in psoriatic patients vs. controls; several of these metabolites were also associated with atherosclerosis progression. Another area of uncertainty is the effect of biologic medications on CV risk. In a recent study, the effect of TNF inhibition was assessed using 2 surrogate outcomes: carotid atherosclerosis by ultrasound and vascular inflammation in the aorta using FDG-PET. The group found that use of TNFI was associated with lower rate of atherosclerosis progression and reduction of vascular inflammation compared to the control group that was on non-biologic DMARDs or no medications. This study highlights a potential beneficial effect of TNF inhibition with respect to vascular risk in patients with psoriatic disease.

Psoriasis and atherosclerosis - shared pathomechanisms Wolf-Henning Boehncke Dr. Boehncke’s talk focused on shared pathomechanisms of Ps and atherosclerosis as well as the role of psoriasis as an independent cardiovascular risk factor. Starting from epidemiologic data that show the association of psoriasis with CV morbidity and mortality, he developed the concept of the "psoriatic march" as an accepted hypothesis on how psoriasis may drive atherosclerosis. The central mechanism linking both is insulin resistance, where metabolic AND non-metabolic cells fail to respond to the normal actions of insulin. Insulin resistance is induced by inflammation and results in endothelial dysfunction as the basis of atherosclerosis. Insulin resistance also explains parts of the dermal changes seen in psoriasis as well, namely the altered keratinocyte differentiation pattern. Finally, Dr. Boehncke discussed the conflicting data published so far on whether continuous systemic anti-inflammatory therapy might reduce the cardiovascular risk of psoriasis patients. In this context, he interpreted the CANTOS study (reduction of cardiovascular mortality in patients with myocardial infarction through inhibition of IL-1beta) as proof of concept, which also indicates the potentially limited effect size of such interventions.
IDEOM International Dermatology Outcome Measures

Dr. Alice Gottlieb presented IDEOM’s activities since the last GRAPP A meeting. (1) Domains for psoriasis for clinical trials were published in JAMA Dermatology; (2) IDEOM collaborated with and obtained funding for HISTORIC, an international consortium of Health Care Providers and patients with hidradenitis suppurativa (HS); domains for HS clinical trials were published in the British Journal of Dermatology; (3) the PsA symptoms questionnaire, the PsAID, will be included in the Corona registry; (4) early collaborations with the acne outcome group were established; and (5) IDEOM and AAD HCPs attended a joint meeting in February 2018 in NYC. We selected a global outcome measure for clinical practice to use for acne, psoriasis and atopic dermatitis. A joint IDEOM and AAD meeting with patients with acne, psoriasis and atopic dermatitis and HCPs is scheduled for October 2018.

At the May 2018 annual IDEOM meeting, we voted and confirmed that a simple patient reported outcome and a simple health provider outcome should be used to assess outcomes in clinical practice. Treat to target strategies should include both HCP and patient reported outcome measures. Payers should base their decisions upon a HCP provided outcome measure or the combination of both HCP reported and patient reported outcome measures.

Ts Treatment satisfaction (TS) is the degree to which the patient perceives the treatment fulfills their health needs. Dr. April Armstrong presented efforts to measure treatment satisfaction in psoriasis. TS has been established as a core domain to be measured in psoriasis clinical trials. TS refers to patients’ satisfaction specific to therapies and not the experience of care, and should reflect patient experience with both treatment outcome and process attributes. Treatment outcome attributes refers to probability, magnitude, and duration of treatment benefit, and probability and reversibility of side effects. Process attributes refer to location, frequency, duration, route of administration, formulation, and cost. The patient's decision to continue or change treatment is based on a decisional balance, where effectiveness is weighed against side effects and inconvenience of the therapy.

PsA PsA symptoms in Psoriasis Trials Delphi update Dr. Lourdes Perez-Chada presented an update on the work conducted by the IDEOM PsA Workgroup (Joseph Merola, Alice Gottlieb, Alexis Ogdie and Jeffrey Cohen). In 2017, PsA Symptoms was selected as a core domain to be measured in all psoriasis clinical trials. To define (1) whether patients should be screened for PsA prior to the measurement of PsA Symptoms in psoriasis clinical trials; and (2) which is the most appropriate instrument to measure PsA Symptoms in this context, the workgroup conducted an on-line Delphi survey, informed by a pre-Delphi exercise. The Delphi was followed by a consensus meeting.

The Delphi survey involved 290+ international stakeholders including rheumatologists (44.5%), dermatologists (26%), patients (7.5%), industry partners (8.9%), dermatologist-rheumatologists (5.1%), and patient association representatives (3.4%).

Results showed that 90% of participants agreed that all patients enrolling in a psoriasis trial should be screened for PsA. Candidate instruments to measure PsA Symptoms included PsAID9, RAPID3, Patient Global Arthritis and Patient Global Psoriatic Arthritis. Among these measures, PsAID9 was voted as the instrument of highest quality. When ranked in order of importance, PsAID9 was chosen as the first choice and RAPID3 was voted as an acceptable second choice. These results were endorsed by stakeholders at the consensus meeting (N=40) and 77% of them agreed that there was no need for a second Delphi round.
PPACMAN Psoriatic Arthritis Clinics Multicenter Advancement Network (PPACMAN update) Drs. Joe Merola, Jose Scher, Soumya Reddy, and Alexis Ogdie presented an overview of the pre-meeting of the Psoriasis and Psoriatic Arthritis Clinics Multicenter Advancement Network (PPACMAN), held on July 13, 2018. The mission of PPACMAN is to nucleate PsO/PsA combined clinics to advance a multi-level approach to psoriatic patients, increase disease awareness and accelerate management. Having established a network of combined clinics and local/regional partnerships, their goals are: (a) improving education about the importance of early identification of PsA and collaborative care for patients with psoriatic disease; (b) support for formation of effective combined clinics and local/regional derm-rheum partnerships; and (c) research demonstrating effectiveness of these models and harnessing the power of these sites for cross-disciplinary studies in the care of PsA. Dr. Ogdie presented research projects and agenda for 2018-2019, including a grant from Pfizer to evaluate barriers and facilitators of co-management of PsA among dermatologists and rheumatologists in the US. Ongoing shared data projects among PPACMAN sites was reviewed. Dr. Scher presented the ‘Preventing Arthritis in a Multi-center Psoriasis At-risk Population’ (PAMPA) study group concept and plan to define ‘high-risk’, predict, and prevent progression to PsA among psoriasis patients. Updates were provided on the PPACMAN Toolkits, including EMR templates/best-practices for use in combined clinics and to facilitate local-regional derm-rheum partnerships, and for building combined clinic centers by Drs. Merola and Reddy. Dr. Reddy presented results of a recent PPACMAN survey on needs and challenges. She wrapped up with discussion of the educational mission of PPACMAN including observerships and provider meetings, the first of which is scheduled in the NYC area Sept 29th. PPACMAN also highlighted its achievements in promoting the “next generation” of researchers including Drs. Lourdes Perez-Chada and Julia Manasson.

Pre and Post-GRAPPA

PRP Patient Research Partners Pre-Meeting Denis O’Sullivan and Niti Goel GRAPPA PRP Co-Chairs This was the 6th annual GRAPPA meeting at which PRPs have been present. There were 11 PRPs in attendance, 1 of whom was new, representing 4 continents (North America, South America, Europe and Asia). PRPs were active participants in the individual sessions and in the breakout sessions, with some PRPs acting as moderators and/or rapporteurs. The PRPs have been active in several ongoing GRAPPA activities during the year, including the development of the OMERACT-GRAPPA Psoriatic Arthritis Core Outcomes Set, the PsA Treatment Guidelines slide deck, the GRAPPA mobile application for iOS & Android devices, the patient self-management brochure, and the GRAPPA Collaborative Research Network. During the year, they also finalized their Policies document and held their first election for PRP Chair-Elect. The Policies document has been shared when requested to assist with PRP integration within other organizations.

The GRAPPA Sonographic Enthesitis Workshop Lihi Eder, Sibel Aydin, Gurjit Kaeley The GRAPPA ultrasound working group has been working on sonographic outcome measures in PsA. The first GRAPPA ultrasound workshop was held July 14-15, 2018, immediately following the GRAPPA annual meeting. The meeting aimed to discuss the research plan concerning the development of a sonographic enthesitis scoring method in patients with PsA. A total of 33 participants, including rheumatologists who are experts in musculoskeletal ultrasound, methodology experts and patient research partners attended the meeting. The meeting included presentations about existing enthesitis scoring methods (by Sibel Aydin), the OMERACT enthesitis scoring system (by Maria Antonietta D’Agostino), summary of work completed to date by the GRAPPA ultrasound group (by Lihi Eder) and discussion of the technical aspects of scanning the enthesis (by Gurjit Kaeley). The meeting also included hands on scanning of patients with enthesitis to assist with development of scanning protocol. The group discussed other ongoing efforts to develop sonographic scoring system for enthesitis and in an effort to avoid overlap, the group agreed to focus on the development of a sonographic enthesitis system to assist with diagnosis of PsA and distinguishing it from psoriasis alone. The next steps include the development of a study protocol, reliability exercise among the investigators and application for funding.
Genetics of Psoriasis  J.T. Elder  Psoriasis is a common, inflammatory and hyperproliferative skin disease associated with arthritis and cardiovascular and metabolic co-morbidities. Genome-wide association studies (GWAS) of psoriasis have identified 86 psoriasis susceptibility loci as well as genetic differences between purely cutaneous psoriasis (PsC) and psoriatic arthritis (PsA) in the MHC and across the genome. A recent collaborative GWAS of psoriasis involving ~40,000 subjects identified 16 new susceptibility regions, highlighting the roles of interferon signaling and the NFkB cascade. Despite these successes, fine-mapping studies indicate that most (~80-90%) of these genetic signals do not encode “traditional” deleterious changes in protein structure. To address this challenge, we are studying the effects of psoriasis-related genetic variation on chromatin accessibility (by ATAC-seq) and gene expression (by RNA-seq) in blood-derived myeloid dendritic cells and skin-homing T-cells from hundreds of psoriasis cases and controls. Other lab projects focus on psoriasis susceptibility genes for which putative functional coding variants have been identified. The cytokines IL-23 and IL-17 play central roles in psoriasis pathogenesis, and TYK2 and TRAF3IP2 encode major downstream mediators of IL-23 and IL-17 signaling via STATs and TRAFs, respectively (19, 20). Coding variants of TYK2 and TRAF3IP2 are strongly associated with PsC and PsA. We at the University of Michigan and others have reported that psoriasis-protective TYK2 variants inhibit STAT3/4 phosphorylation in IL-12-stimulated Th1 cells. Using an assay based on CD3/CD28 activation of peripheral blood mononuclear cells (PBMC), we find that the TRAF3IP2 D10N variant has a significant stimulatory effect on the induction of Th17 cells. Ongoing work is taking advantage of PBMC from genetically-characterized individuals as a practical resource for defining the cell types responsible for Th17 induction, the signal transduction requirements involved, and the role of psoriasis-associated genetic variation in this process.

Genetics of PsA and Pathogenesis of the Disease  Darren O’Rielly  A brief overview was provided of the varying types of genomic investigations conducted in the field of PsA as well as the genetic associations identified to date for PsA was compared with psoriasis. The successes and current challenges of genome-wide association studies (GWAS) in PsA were discussed in addition to the possible benefit of a multi-omics approach to novel gene/pathway discovery in PsA. Genetic variants weighted for or specific to PsA were highlighted focussing on HLA-B alleles. Possible reasons for the paucity of PsA-specific genes were discussed. Data was presented that suggests that performing additional GWAS on much larger PsA cohorts is likely to result in the discovery of additional variants achieving a genome-wide level of significance. Finally, the importance of HLA-B alleles with respect to disease expression patterns in PsA were also discussed.

Prediction of treatment response to TNFis in PsA  Meghna Jani  This talk on the advances in prediction of treatment response to TNFis in PsA featured a presentation by Dr. Meghna Jani, a NIHR academic clinical lecturer in Rheumatology from the University of Manchester. The need for a precision evidence approach in PsA was discussed, along with an overview of the evidence so far from clinical, genetic and serological studies. New data from the Outcomes for Treatment Response in Psoriatic Arthritis Study Syndicate (OUTPASS) study was presented, which is a multi-centre national UK study in PsA patients about to be commenced on a biologic collecting clinical, serological and genetic markers. Data on pharmacological biomarkers such as TNFi drug levels and drug antibodies on treatment response was discussed, suggesting that adalimumab drug levels are a better biomarker for treatment response but measurement of drug antibodies may be useful to understand the aetiology of low drug levels. Early data on genetic factors associated with 6-month treatment response was also presented. The need for collaborative studies to obtain larger sample sizes to study small effects in a heterogeneous PsA population was highlighted.

2018 ELECTION RESULTS
Congratulations to our recently elected Steering Committee members! We would like to welcome Atul Deodhar, Evan Siegel, Alberto Cauli, and returning members Laura Coates and Vinod Chandran. In addition, we welcome Cheryl Rosen and Diamant Thaci to the Steering Committee, who were appointed last year by the Executive Committee.
A heartfelt thank you to Kurt de Vlam for his service on the Steering Committee for the last 3 years.
Quality indicators in psoriasis: A US perspective
Krisitna Callis Duffin

Perspectives of what constitutes quality care vary: physicians relate quality to adherence to standard of care and health-related outcomes, but patient satisfaction questionnaires include the patient experience and hospitals may use cost-effectiveness. In the US, quality is now linked to payment incentives based on documenting assessments such as BSA, DLQI, PASI or PGA and if patients on biologics meet specific targets (e.g., BSA <3% at 6 months). There is no consensus on this and is being imposed by the system on the providers.

Quality Indicators: the Quantum Initiative Philip Helliwell

Quantum was started in November 2015 and initially presented at the Annual Meeting in 2016. The Quantum project’s goals are to raise awareness of current disease management, to promote collaboration between centers to enable knowledge sharing of good practices, and to reduce delays in diagnosis of psoriasis and PsA. The breakout groups assessed the 8 target statements in 4 domains on the following points:
- if the statement is a clear and concise statement,
- if the indicator is feasible and measurable,
- if it is relevant to improvement of care, and
- if the indicator is evidence-based.

Other statements within each domain were also variably considered. Each group reported back their results and will be presented in detail in the J Rheum publication next year.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Targets</th>
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<tbody>
<tr>
<td><strong>1. Shorten Time to diagnosis</strong></td>
<td><strong>Targets</strong></td>
</tr>
<tr>
<td>Average duration from presentation to HCP to confirmed PsA diagnosis(^\text{(1)})</td>
<td>Less than 6 months</td>
</tr>
<tr>
<td>% of patients with Psoriasis in a year who receive PsA screening test (a suitable validated tool such as PEST, CONTEST or other questionnaires)(^\text{(2)})</td>
<td>PsA screening test to be conducted at least once a year</td>
</tr>
<tr>
<td>Multidisciplinary PsA assessment is available (Y/N)(^\text{(3)})</td>
<td>Multidisciplinary collaboration should be available in centres</td>
</tr>
<tr>
<td>Does the centre provide suitable training for HCPs, nurses etc. to increase awareness of PsA disease symptoms (Y/N)(^\text{(4)})</td>
<td>100% of staff should have followed suitable training on PsA each year</td>
</tr>
<tr>
<td><strong>2. Improve Multidisciplinary Collaboration</strong></td>
<td><strong>Targets</strong></td>
</tr>
<tr>
<td>Average number of PsA evaluations done by HCP per patient in a year (depending on the specialty), assessing 6 core domains of PsA: musculoskeletal, skin, function, pain, patient’s global assessment, and Quality of Life(^\text{(5)})</td>
<td>1-2 evaluations per year to monitor disease activity</td>
</tr>
<tr>
<td><strong>3. Optimise Disease Management</strong></td>
<td><strong>Targets</strong></td>
</tr>
<tr>
<td>% PsA patients on whom T2T strategy is applied(^\text{(6)})</td>
<td>All patients with new onset disease should be offered a T2T strategy</td>
</tr>
<tr>
<td>% of PsA patients who received full disease assessment for co-morbidities, e.g. co-morbidity index at least once every year(^\text{(7)})</td>
<td>All patients should have at least an annual assessment for comorbidities</td>
</tr>
<tr>
<td><strong>4. Improve Disease Monitoring</strong></td>
<td><strong>Targets</strong></td>
</tr>
<tr>
<td>Availability of short-term unscheduled appointments (Y/N)(^\text{(8)})</td>
<td>Maximum wait time for unscheduled appointment should be 2 weeks</td>
</tr>
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EDUCATE

GRAPPA EDUCATIONAL INITIATIVES Education Committee: Philip Mease, Amit Garg, co-chairs; Elaine Husni, Kristina Callis Duffin, Philip Helliwell, Vinod Chandran, Enrique Soriano and Katy Leung. On behalf of the Education Committee, Dr. Philip Mease presented a variety of educational events that have occurred around the world, both accredited continuing medical education symposia and non-CME. The (predominantly) US-based CME initiatives are the GRAPPA-SPARTAN PsA-SpA symposia offered as two-hour, half-day, and full-day symposia. A GRAPPA Rheum-Derm PsA-psoriasis symposia is being renewed and will offer a similar variety of options. International educational symposia are also conducted around the globe with support from various companies such as AbbVie, Janssen, Novartis, Pfizer, UCB and others. The GRAPPA European educational model has included symposia in such cities as Leeds, Milan, Bern, Geneva, London, Sochi, Moscow and Stockholm. In other parts of the world, GRAPPA has conducted stand-alone education or partnered with local groups for educational options in India (several cities), Tel Aviv, Seoul, Rio de Janeiro, Fortaleza, Porto Alegre, Panama City, Seoul and Tokyo. GRAPPA looks forward to other opportunities to bring PsA education to additional audiences with the PRIME Inc collaboration, further utilization of our slide library (available online), collaboration with PPACMAN and our physical examination educational videos (Callis Duffin/Mease) in addition to creating symposia embedded within PANLAR and APLAR in addition to our 3-hour CME offered in partnership with SPARTAN and ASAS yearly post-ACR.

ULTRASOUND ENTHESITIS PROJECT

Sibel Aydin, Gurjit Kaeley, Lihi Eder

Dr. Aydin presented an update on the GRAPPA Ultrasound Enthesitis Project’s work comparing entheseal ultrasound in PsA and AS. Physiological changes come in response to age, BMI and physical activity. Higher BMI results in higher damage and inflammation scores; PsA affects a higher percentage of women and an older age group with higher BMI while AS affects a higher percentage of men, generally younger and those with lower BMI. The question is this: is enthesis the same in AS and PsA? Can we use the same scoring? There is a greater magnitude of entheseal micro-damage and repair in PA compared to AS on Ultrasound. One goal is to achieve discrimination of different disease activity stages (active vs inactive) as well as responsiveness. The goal of the work is to have a scoring method for doctors; discrimination, monitoring treatment response, and research of pathogenesis. Ultimately, the working group will build a team of researchers for implementing ultrasound in multi-center PsA trials. Steps done to date: SLR on enthesis scores in PsA (in press), discrimination of multiple entheseal sites between PGA and controls, survey to GRAPPA members resulting in 38 potential centers for the ongoing work.

MRI

MRI IMAGING WORKING GROUP Walter Maksymowych Assessment of disease activity in psoriatic arthritis lacks objective tools, especially for assessment of large weight-bearing joints that may disproportionately impact disability. The MRI Imaging Working Group in GRAPPA has been developing whole body MRI methodology for objective assessment of inflammation in synovium, tendon, and bone together with large joint scoring methodologies for assessment of inflammation in the hip and knee. A preliminary scoring method has been developed for whole body MRI that assesses synovitis and osteitis in 83 peripheral joints and 33 entheses (0-3 grading scheme per joint or enthesis) and moderate reliability attained in a preliminary exercise of 8 patients. A granular method for scoring bone marrow lesions in the hip has been developed based on the use of software which applies an overlay to segment the femoral head and acetabulum. This allows multiple regions to be scored directly on a web-based interface of consecutive MRI slices through the joint (scoring range 0-100) dispensing entirely with the use of scoring spreadsheets. Very good to excellent reliability was attained for detection not only of lesions at a cross-sectional level but also in detecting change 8 weeks after intra-articular steroid injection in scans from 90 patients assessed by 8 readers. Discrimination between treatment groups can now be assessed in clinical trials.

TREAT

TREATMENT GUIDELINES The GRAPPA Guidelines are now 3 years old and efforts are being made to organize a committee to conduct the literature search.

ILAR

Musaab Elmamoun, Laura Coates, Vinod Chandran Within the update on treatment recommendations, a brief update on the progress of the ILAR project was presented. With funding from ILAR, a team of around 20 physicians from across the world have worked to adapt existing international recommendations (from EULAR and GRAPPA) for resource poor settings. In particular this project focuses on Central/South America and Africa. A literature review revealed a paucity of data in PsA within these settings suggesting the need for future research. The results of this review and the adapted
OMERACT GRAPPA-OMERACT PsA CORE OUTCOME MEASURE SET PROJECT UPDATE 2018 Co-chairs: Ana-Maria Orbai, Alexis Ogdie, Katy Leung, Will Tillett The Psoriatic Arthritis Impact of Disease (PsAID12) was preliminarily (amber) endorsed as a core instrument for PsA clinical trials at OMERACT 2018. Patients and GRAPPA stakeholders in 2017 were involved in data review and consensus process. PsAid12 was endorsed with green (good to go) for truth domain match, feasibility, construct validity, test rest reliability and longitudinal construct validity. Evidence for clinical trial discrimination and thresholds of meaning was amber as PsAID12 needs to be studied in clinical trials and cutoffs for interpretation in context of disease activity states and change need to be validated. Data from four studies and an unpublished analysis showed that all the scores of the PsAID12 were lower in patients with low disease activity compared to high disease activity - as expected. Two other studies showed that patients who had low PsAID12 scores were more likely to achieve improvement in PsA disease activity. There was high correlation between PsAID12 and symptom and function scores. Ongoing work for PsAID12 includes implementation in clinical trials to be able to assess discrimination in this setting and validation of thresholds for score interpretation.

The 66/68 swollen and tender joint count was also taken forward to match the domain, "Musculoskeletal disease activity: peripheral arthritis". Similar to the PsAID, this process included domain match and feasibility at GRAPPA in 2017, among the working group and with patient research partners; both feasibility and domain match were given a ‘green’ rating. We examined the same concepts for the 28/28 and 76/78 joint counts as well. Domain match was low for the 28 joint count (due to lack of assessment of the feet) and the 76/78 was felt to have less feasibility than the 66/68 joint count. To assess the measurement properties (including test-retest reliability, inter-rater reliability, construct validity and discrimination), we carried out a systematic literature review, analyzed data from 8 industry sponsored RCTs as well as longitudinal observational cohort studies (PARC, ASSESS and LOPASII). The 66/68 joint count had good construct validity, responsiveness, and clinical trial discrimination (all deemed "green" level performance). Inter-rater reliability of the swollen joint counts is low - moderate for tender joint counts. Only one study (performed by Tillett et al. for this exercise) assessed intra-rater reliability which was high; only one study was available for thresholds of meaning (also by Tillett et al.) and thus these two properties were deemed “amber”.

Despite the existence of only one study for each of these properties, the 66/68 joint count received a “green” endorsement at OMERACT and is the first fully endorsed instrument for the updated PsA Core Measurement Set.

Over the next few years, instrument appraisal will continue with new core domains and candidate instruments through a similar process of data review and consensus. Katy Leung is leading a working group evaluating physical function instruments, Will Tillett is leading a working group on imaging measures in PsA, and Ana-Maria Orbai is leading Fatigue and completion of research agenda for PsAID12 activities, together with a timeline for publication (June 2019).

RESEARCH COMMITTEE UPDATE April Armstrong, Chris Ritchlin and Oliver FitzGerald This year there were 26 applications for the GRAPPA Pilot Research Awards. The standard of the applications was excellent and following review by committee, 3 awards for $25,000 were made. Given the progress made by awardees last year, we would be hopeful that similar progress will be made by this year’s awardees. See page 1 for details of the projects.

The CRN update is presented on page 2. In order to advance possible participation by GRAPPA in EU-based funding opportunities, it has been decided to register GRAPPA in the EU with the Netherlands the chosen country following detailed evaluation.
SLR  EARLY PSORIATIC ARTHRITIS SLR Philip Helliwell Dr. Helliwell reported on the set up of this systematic literature review project entitled “Non-topical pharmacological treatment of early, untreated (DMARD-naïve, systemic therapy-naïve) psoriatic disease: a systematic review.” The target condition was defined so that clinical studies investigating on: a) musculoskeletal and/or cutaneous manifestations; or b) untreated psoriatic disease in its early stage could be included. Case reports or studies assessing the effects of topical therapies were excluded. Second, the range of outcome measures was considered with a broad view, in order to assess across the spectrum of disease manifestations and to maximise the sensitivity of the search strategy. Finally, the resources to be accessed to find the available evidence were chosen in order to cover a time range from 1946 to June 2018 and to span across electronic databases, trial registers and conferences proceedings. The flow diagram presented during the talk highlighted the substantial number of records (144,299) identified through electronic database searching and provided the status of the ongoing titles screening activities, together with a timeline for publication (June 2019).

PILOT  2017 GRAPPA Pilot Research Grant Recipient Report-back: Psoriasis- and inflammatory bowel disease models align with biomechanical stress to trigger mild joint inflammation  Margot Van Mechelen Increasing evidence supports the hypothesis that biomechanical stress, together with inflammatory triggers from distant sites such as the skin or the intestine, can contribute to the onset of psoriasis arthritis, introducing the concept of a “Koebner phenomenon” at the joint level. This was further investigated by combining a protocol of forced exercise in mice with locally-induced cutaneous or intestinal inflammation. This local inflammation also triggers a systemic response with inflammation-associated bone loss and discrete signs of joint disease. Forced exercise increases the degree of synovitis and enthesitis in this setting.

PILOT  2017 GRAPPA Pilot Research Grant Recipient Report-back: Biomarkers of Progression to Psoriatic Arthritis in Patients with Psoriasis Conor Magee The goal of this research project is to develop a “bio-profile” based on musculoskeletal (MSK) signs and symptoms and these patients are being followed longitudinally to examine which features are predictive of the development of PsA. To date HLA typing has been performed on almost half of the recruited patients. HLA typing is currently being performed on the remaining patients. A targeted proteomics approach is being used to identify differences in proteins between patients with psoriasis and no MSK features and those with established PsA. Proteins found to be different between these two groups will then be used to evaluate prospectively for the development of PsA in the remaining patients with psoriasis.

SLIDES  GRAPPA Slide Sets Philip Helliwell The GRAPPA Slide Sets are available for use. Go to the GRAPPA Website and login, then >Resources >Library. https://grappa.memberclicks.net/login

APP  GRAPPA APP Laura Coates The GRAPPA App is available on both Apple and Android devices and is free to members and non-members of GRAPPA. NO DATA is being collected by its HCP or patient users - or any patient identifiers - only metadata so that we can see how many people have downloaded it and within which regions.
40 years!

CONGRATULATIONS
Dafna Gladman MD, FRCPC
University of Toronto
Director, Toronto Psoriatic Disease Research Program

photo courtesy Andrew Downs

THANK YOU
Cheryl Rosen for coordinating the flowers for GRAPPA's 15th birthday celebration!

THANK YOU to the on-site GRAPPA staff for all that you do - we couldn't have the meeting without you!

Pam Love
Sharon Andrews
Rebecca Snyders
Janine Kowack
THANK YOU TO OUR SPONSORS!

PLATINUM

AMGEN  abbvie  Pfizer

ucb  Lilly  NOVARTIS  Janssen

GOLD

Bristol-Myers Squibb  Celgene

INNOVATION PARTNER

LEO  SUN PHARMA  Sienna biopharmaceuticals
UPCOMING EVENTS

Friday, October 12 - Saturday, October 13, 2018
Naples Educational Workshop on Psoriasis and Psoriatic Arthritis
University of Naples Federico II Via Pansini, 5 - Naples - Italy
REGISTRATION: Contact nunzia@solariaservice.com

Saturday, Oct. 20, 2018
GRAPPA Adjacent to ACR
6:30 PM - 8:30 PM CDT
Marriott Marquis Chicago Room: Grand Horizon E/F
2121 South Prairie Avenue, Chicago, IL 60616
REGISTRATION: https://grappa.memberclicks.net/grappa-adj-to-acr-2018

Wednesday, October 24, 2018
SPARTAN-GRAPPA-ASAS Symposium on Axial Spondyloarthritis
1:00 PM - 4:00 PM CDT
Marriott Marquis Chicago Room: Great Lakes B
2121 South Prairie Avenue, Chicago, IL 60616
REGISTRATION: www.123signup.com/SPA-GRA