

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

1:00 pm - 1:10 pm

**6533 - Primary Results from a Phase 2b, Randomized, Placebo-Controlled Trial of Upadacitinib for Patients with Atopic Dermatitis /Emma Guttman, MD, PhD**

Objective 1: Report primary efficacy results from first 16 weeks of phase 2b upadacitinib trial

Objective 2: Report safety results from first 16 weeks of phase 2b upadacitinib trial

Objective 3: N/A

Background: Atopic dermatitis (AD) is a chronic inflammatory skin disease characterized by pruritic skin lesions. The selective JAK-1 inhibitor, upadacitinib, is being investigated for treatment of patients with AD and other inflammatory indications. Type of Study: Phase 2b Methods: In the first 16-week, double-blind portion of this 88-week, dose-ranging trial, adults with moderate-to-severe AD (EASI  $\geq 16$ , BSA  $\geq 10\%$ , IGA  $\geq 3$ ) inadequately controlled by topical treatment, or for whom topical treatments were not medically advisable, were randomized to once-daily upadacitinib monotherapy 7.5, 15, or 30 mg, or placebo. Missing data were handled by last-observation-carried-forward (continuous variables) and non-responder-imputation (categorical variables). Results: Of the 167 randomized patients; 166 received study drug (42 in each upadacitinib dose-group; 40 in placebo). The primary efficacy endpoint, mean percentage improvement in EASI score from baseline to week 16, for upadacitinib 7.5/15/30mg groups was 39.4%/61.7%/74.4% vs 23.0% placebo ( $p < 0.05 / < 0.001 / < 0.001$ ). EASI 90 was achieved at week 16 by 14.3%/26.2%/50.0% upadacitinib patients vs 2.4% placebo ( $p < 0.05 / p < 0.01 / p < 0.001$ ). Mean percent improvement in pruritus from baseline to week 16 (measured by Numerical Rating Scale) was 39.6%/48.0%/68.9% upadacitinib vs 9.7% placebo ( $p < 0.01 / < 0.001 / < 0.001$ ). The most common adverse events (AEs), upadacitinib groups vs placebo, were upper respiratory tract infection (16.7%/11.9%/11.9% vs 10.0%) and AD exacerbation (16.7%/7.1%/11.9% vs 7.5%). 4.8%/2.4%/0% of upadacitinib patients (7.5/15/30mg groups) had serious AEs vs 2.5% placebo. Conclusion: A clear dose-response was observed for upadacitinib efficacy in AD; the highest efficacy was achieved with 30 mg QD. The positive benefit/risk profile of upadacitinib supports proceeding with phase 3 trials in AD.

### **REFERENCES**

NONE

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

1:10 pm - 1:20 pm

**6777 - Efficacy and Safety of Oral ASN002, a Novel JAK/SYK inhibitor, in Patients with Moderate-to-Severe Atopic Dermatitis: A Randomized, Double-Blind, Placebo-Controlled Clinical Study.** /Robert Bissonnette, MDMS

Objective 1: To evaluate the safety and tolerability of ASN002 in patients with moderate-to-severe atopic dermatitis

Objective 2: To evaluate the preliminary efficacy and pharmacokinetic profile of of ASN002 in patients with moderate-to-severe atopic dermatitis

Objective 3: N/A

Background: Dysregulation of Th2 and Th22 cytokine pathways are implicated in the pathogenesis of atopic dermatitis (AD). ASN002 is a novel oral inhibitor of JAK and SYK signaling (including Tyk2), that diminishes production of Th2 and Th22 cytokines. Syk also regulates keratinocyte differentiation. ASN002 was evaluated in moderate-to-severe AD patients in a 4-week Phase 1b randomized, double-blind, placebo-controlled study (NCT03139981). Methods: Patients were randomized 1:3 placebo or ASN002 at 20, 40 or 80 mg once daily for 4-weeks (n=36). Inclusion criteria were Eczema Area and Severity Index (EASI)  $\geq 16$ , body surface area (BSA) involvement  $\geq 10\%$  and an Investigator's Global Assessment (IGA) of  $\geq 3$  at baseline visit. Study objectives included safety/tolerability, efficacy and pharmacokinetic measurements. No concomitant administration of topical corticosteroids or other immunosuppressants was permitted during or prior to study. Results: ASN002 was well tolerated at all dose levels. The most common adverse events were transient, mild headache and nausea, mostly restricted to Day 1 of dosing. Blinded data per cohort (including both ASN002 and placebo dosed subjects) showed rapid onset and dose-related declines in EASI50 (30-82%) and EASI75 (10-55%) after 4 weeks. The average decrease in EASI was 28-68% and in Itch Numeric Rating Scale (NRS) was 19-51% at week 4. Improvements were also observed in BSA and IGA assessments in mid and high dose groups. Conclusion: This is the first clinical report on safety and efficacy of oral JAK/SYK inhibitor ASN002 in moderate-to-severe AD. ASN002 was very well tolerated and demonstrated robust activity in EASI and pruritus improvements after 4 weeks.

### **REFERENCES**

Guttman-Yassky, E., Nograles, K.E., Krueger, J.G. Contrasting pathogenesis of atopic dermatitis and psoriasis – Part I: Clinical and pathological concepts. J. Allergy Clin. Immunol. 2011; May;127(5):1420-1432

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

1:20 pm - 1:30 pm

**6684 - Patient-reported Outcomes (PROs) from a Phase 2 Double-blinded, Randomized, Multi-center, Placebo-controlled Study of Baricitinib in Adult Patients with Moderate-to-severe Atopic Dermatitis (AD) /Jonathan Silverberg, MD, PhD, MPHhAD**

Objective 1: To determine baricitinib's effect on patient-reported outcomes (PROs) in moderate-to-severe AD

Objective 2: TYPE OF STUDY: Phase 2, double-blinded, placebo-controlled, 16-week study.

Objective 3: N/A

BACKGROUND: To determine baricitinib's effect on PROs in moderate-to-severe AD METHODS: This 16-week, placebo-controlled study randomized patients with moderate-to-severe AD 4:3:3 to once daily placebo (N=49), baricitinib 2-mg (N=37), or 4-mg (N=38), while on background topical corticosteroids. SCORing Atopic Dermatitis (SCORAD) for pruritus and sleep, and Dermatology Life Quality Index (DLQI) were assessed. The effect of baseline disease severity on Patient-Oriented Eczema Measure (POEM) response was also evaluated. RESULTS: Compared to placebo, both baricitinib doses showed statistically significant improvements in mean POEM scores starting at Week 1, but only the 4-mg group was significant at Week 16 (4-mg=-7.5; 2-mg=-6.4; placebo=-3.5; p=0.011 and p=0.07, respectively). Significant improvements in SCORAD-Pruritus at Week 1 and SCORAD-sleep and DLQI occurred at Week 4. With regard to POEM, the 4-mg showed more pronounced early efficacy; analysis of patients with more severe disease at baseline (Eczema Area and Severity Index above median of 21.2) showed significant improvement for 2-mg dose at every time-point during the study. POEM mean improvement from baseline at Week 16 were -6.8 (4-mg, p=0.051), -8.6 (2-mg, p=0.007), and -1.6 (placebo). By week 16, more patients in baricitinib 2-mg (45%, p<0.01) and 4-mg (37.5%, p=0.06) than placebo (4%) reported clear/almost clear or mild eczema (POEM≤7). CONCLUSIONS: Baricitinib showed improvement in PROs in both doses, with significant symptom improvements seen at week 1. Although the 4-mg dose showed more pronounced early efficacy in the intention-to-treat population, sub-analysis suggested that both doses also provide meaningful benefit in severe patients. Phase 3 studies are ongoing.

### **REFERENCES**

NONE

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

1:30 pm - 1:40 pm

**6753 - MOR106, an Anti-IL-17C mAb, a Potential New Approach for Treatment of Moderate-to-severe Atopic Dermatitis: Phase 1 Study.**  
/Diamant Thaci, MDMS

Objective 1: Recognise the understanding of IL-17C as a relevant target in AD pathogenesis

Objective 2: Recognise the potential of MOR106 as an antibody acting against IL-17C in the treatment of AD

Objective 3: N/A

Background: IL-17C (a member of the IL-17 family) induces expression of proinflammatory cytokines, mediators and antimicrobial peptides in epithelial cells. MOR106 is a fully humanized monoclonal antibody binding with high affinity to human IL-17C, thereby neutralizing its biological activity. This could potentially improve related diseases including atopic dermatitis (AD). Type of study: A randomized, double-blind, placebo-controlled, dose-escalation, phase I study evaluating three ascending dose levels in subjects with moderate-to-severe AD. Methods: 25 subjects with moderate-to-severe AD received four weekly infusions, with a 10 week follow up period. Endpoints included safety, tolerability, pharmacokinetics and immunogenicity assessment. Efficacy and DLQI were included as exploratory endpoints. Results: Treatment with MOR106 showed marked improvement of signs and symptoms of AD. At the highest dose (10mg/kg), 5 out of 6 subjects (83%), vs. 1 out of 6 (17%) placebo subjects showed an EASI-50 response at week 4. These results were corroborated by the SCORAD and IGA scores. The onset of activity was rapid, and was maintained for over 2 months after the last treatment. MOR106 was well tolerated with no safety signals detected. Exposures increased dose-proportionally with a terminal half-life of 13 - 17 days in AD patients. Conclusion: Overall, MOR106 was well tolerated and showed a favourable PK profile in atopic dermatitis subjects. These promising results on efficacy, observed in this small study, support further the development of MOR106 in this indication.

### **REFERENCES**

NONE

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

1:40 pm - 1:50 pm

**6658 - Proof-of-concept Phase 2a Clinical Trial of ANB020 (anti-IL-33) in the Treatment of Moderate-to-severe Atopic Dermatitis /Graham Ogg, MD, PhD**

Objective 1: Discuss role of IL-33 in atopic disease

Objective 2: Present clinical and mechanistic data on first-in-class phase 2a study of anti-IL-33 in patients with moderate-to-severe atopic dermatitis

Objective 3: N/A

Background Moderate-to-severe atopic dermatitis (AD) carries significant unmet medical need and is associated with atopic asthma, rhinitis and food allergy. IL-33 is an alarmin cytokine which is over-expressed in atopic dermatitis lesions and contributes to down-stream type 2 immune responses, including group 2 innate lymphoid cells and Th2 cells. A previous phase 1 study demonstrated safety, pharmacokinetics and pharmacodynamic activity of the anti-IL-33 antibody ANB020. Type of Study Phase 2a clinical trial Methods We undertook a first-in-class phase 2a clinical trial of a single intravenous administration of 300mg ANB020 (anti-IL-33) in 12 adults with moderate-severe atopic dermatitis. Patients were followed clinically for 20 weeks and had concomitant blood and skin biomarker analyses. Results Significant rapid and sustained clinical responses were observed, and were accompanied by relevant changes in granulocyte migration into skin. ANB020 was generally well tolerated. The clinical, mechanistic and updated SAE data will be presented. Conclusion This proof-of-concept study of ANB020 (anti-IL-33) is a first-in-class intervention and potentially represents a new therapeutic option for patients with moderate-severe atopic dermatitis.

### **REFERENCES**

Hardman C, Ogg G. Interleukin-33, friend and foe in type-2 immune responses. *Curr Opin Immunol.* 2016 Oct;42:16-24. doi: 10.1016/j.coi.2016.05.004.

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

1:50 pm - 2:00 pm

### **6495 - Efficacy and Safety of Risankizumab: Results from Two Double-blind, Placebo- and Ustekinumab-controlled, Phase 3 Trials in Moderate-to-severe Plaque Psoriasis /Kenneth Gordon, MD**

Objective 1: To report the efficacy of risankizumab compared with placebo from two Phase 3 trials in patients with moderate-to-severe chronic plaque psoriasis

Objective 2: To report the efficacy of risankizumab compared with ustekinumab from two Phase 3 trials in patients with moderate-to-severe chronic plaque psoriasis

Objective 3: To report the safety results from two Phase 3 trials of risankizumab compared with ustekinumab and placebo in patients with moderate-to-severe chronic plaque psoriasis

Background: Interleukin-23 is a key cytokine in the development and maintenance of psoriatic lesions. Risankizumab is a humanized IgG1 monoclonal antibody that binds to IL-23's p19 subunit, selectively inhibiting this critical cytokine and its role in psoriatic inflammation. Type of Study: Phase 3 Trials Methods: UltIMMa-1 (N=506) and UltIMMa-2 (N=491) were replicate, randomized, double-blind, placebo- and active comparator-controlled studies that evaluated efficacy and safety of risankizumab in adult patients with moderate-to-severe plaque psoriasis. Patients were stratified by weight and prior TNFi-exposure and randomized 3:1:1 to receive 150 mg risankizumab, 45/90 mg ustekinumab (weight-based per label) or matching placebo. Patients were dosed at weeks 0, 4, 16, 28, and 40, with placebo crossover to risankizumab at week 16. Co-primary endpoints were PASI 90 and sPGA 0/1 at week 16 versus placebo with comparisons between risankizumab and ustekinumab as ranked secondary endpoints. Missing data were imputed as non-response. Results: All primary and ranked secondary endpoints were met for both trials (P<0.001). At week 16 of UltIMMa-1&2 trials, risankizumab-treated patients achieved significantly higher PASI 90 (75.3%/74.8%) and sPGA 0/1 (87.8%/83.7%) response rates versus placebo- (4.9%/2.0%; 7.8%/5.1%) or ustekinumab-treated patients (42.0%/47.5%; 63.0%/61.6%). At week 52, risankizumab-treated patients achieved significantly higher response rates versus ustekinumab. In both trials, treatment-emergent adverse event (TEAE) rates were comparable across treatment groups throughout the study duration. The most frequently reported TEAE was upper respiratory tract infection. Conclusion: Risankizumab was consistently superior to both placebo and ustekinumab in the treatment of moderate-to-severe plaque psoriasis. TEAE profiles were similar between risankizumab and ustekinumab, and there were no unexpected safety findings.

### **REFERENCES**

NONE

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

2:00 pm - 2:10 pm

### **6748 - Long-term Efficacy of Guselkumab Treatment After Drug Withdrawal and Retreatment in Patients with Moderate-severe Plaque Psoriasis: Results from VOYAGE 2 /Kristian D.J. Reich, MD, PhD**

Objective 1: To report long-term efficacy of guselkumab (GUS) after drug withdrawal and retreatment in patients with moderate-severe psoriasis (PsO) in the Phase 3 VOYAGE 2 study.

Objective 2: To report safety with GUS withdrawal and retreatment through Wk100 in Phase 3 Voyage 2 study.

Objective 3: N/A

Objective: To report long-term efficacy of guselkumab (GUS) after drug withdrawal and retreatment in patients with moderate-severe psoriasis (PsO) in the Phase 3 VOYAGE 2 study. Methods: At Wk28, patients initially randomized to GUS who achieved a PASI90 response were re-randomized to either PBO/withdrawal (with retreatment upon loss of  $\geq 50\%$  PASI improvement achieved at Wk28 or at Wk72 if retreatment criteria were not met) or continued GUS treatment through Wk72. Results: Among 375 patients initially randomized to GUS who achieved a PASI90 response at Wk28, 182 were re-randomized to PBO/withdrawal and 193 to GUS/maintenance treatment. Efficacy for the continued GUS treatment group was maintained through Wk72, while responses for the withdrawal group diminished, with PASI90 responses of 86.0% vs 11.5% respectively at Wk72. Among the 182 patients in the withdrawal arm, 117 were retreated with GUS prior to Wk72; 56 did not meet retreatment criteria and initiated retreatment at Wk72 per protocol. Of 173 patients retreated, 87.6% achieved PASI90 within 6 months of commencing retreatment. No new safety signals were observed with GUS withdrawal and retreatment through Wk100. Maintenance of PASI90 response after drug withdrawal was associated with continued suppression of IL-17A, IL-17F, & IL-22, while loss of response was associated with increased levels of these circulating cytokines. Conclusion: Superior maintenance of high efficacy response rates was achieved with continuous GUS treatment vs withdrawal, and the majority of retreated patients achieved PASI90. Maintenance of PASI90 after drug withdrawal was associated with continued suppression of IL-17A, IL-17F, and IL-22.

### **REFERENCES**

NONE

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

2:10 pm - 2:20 pm

**6696 - Dual Neutralization of Interleukin (IL)-17A and IL-17F with Bimekizumab in Moderate-to-severe Psoriasis: Results from a Phase 2b, Randomized, Double-blinded, Placebo-controlled, Dose-ranging Study /Kim A. Papp, MD, PhD, FRCPCoS**

Objective 1: The primary endpoint was  $\geq 90\%$  reduction in Psoriasis Area Severity Index (PASI90) at Week 12.

Objective 2: Secondary endpoints (PASI90 [Week 8], PASI75 and PASI100 [Week 12], and IGA [Weeks 8 and 12]) and safety were also assessed.

Objective 3: N/A

Background Preclinical and early clinical data support dual neutralization of IL-17A and IL-17F as a novel targeting approach in psoriasis. This Phase 2b double-blinded, placebo-controlled, dose-ranging study (NCT02905006) assessed efficacy and safety of bimekizumab, rationally designed to potently and selectively neutralize IL-17A and IL-17F, in patients with moderate-to-severe psoriasis. Methods 250 patients (randomized 1:1:1:1:1) received subcutaneous bimekizumab 64mg, 160mg, 160mg with 320mg loading dose, 320mg, 480mg, or placebo every four weeks, for 12 weeks. Primary endpoint was  $\geq 90\%$  reduction in Psoriasis Area Severity Index (PASI90) at Week 12. Secondary endpoints and safety were also assessed. Results At Week 12, there was a significant ( $P < 0.0001$ ) dose response in PASI90 response rates; PASI90 was achieved by 46.2-79.1% of bimekizumab-treated patients versus 0% of placebo ( $P < 0.0001$ , all doses). Each secondary endpoint, PASI90 (Week 8), PASI75 and PASI100 (Week 12), and Investigators Global Assessment (IGA) of “clear” or “almost clear” (Weeks 8 and 12), was achieved by more bimekizumab-treated patients than placebo ( $P < 0.0003$ , all doses). Clinically meaningful skin clearance was observed by Week 4. More bimekizumab-treated patients achieved PASI100 (Week 12) than placebo (27.9-60.0% versus 0%;  $P \leq 0.0002$ , all doses). Highest PASI90 (79.1%) and IGA (86.0%) responses at the Week 12 time point were achieved with bimekizumab 320mg. Treatment-emergent adverse events were reported by 126/208 (61%) bimekizumab-treated patients versus 15/42 (36%) for placebo; no unexpected or dose-related safety risks were observed. Conclusion Dual neutralization of IL-17A and IL-17F with bimekizumab provided both rapid and substantial clinical improvements in patients with psoriasis, with no unexpected safety signals.

### **REFERENCES**

NONE

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

2:20 pm - 2:30 pm

### **6645 - A Phase Iv, Randomized, Double-blind, Placebo-controlled Crossover Study of the Effects of Ustekinumab on Vascular Inflammation in Psoriasis (The Vip-U Trial) /Joel Gelfand, MD, MSCEST**

Objective 1: The VIP-U Study is a clinical trial designed to investigate the effect of ustekinumab compared to placebo on vascular inflammation (assessed by 18F-fluorodeoxyglucose-positron emission tomography/computed tomography, FDG-PET/CT) in patients with moderate

Objective 2: Additional objectives include evaluation of impact of treatment on cardiometabolic biomarkers and FDG-PET/CT in an open label extension phase of 52 or 64 weeks (this objective is ongoing and will be presented at a later date).

Objective 3: N/A

Background: Inflammation is critical to atherosclerosis. Psoriasis, an inflammatory disease, is a risk factor for cardiovascular (CV) events and mortality. The severity of skin disease is positively associated with CV risk including increased aortic inflammation measured by FDG-PET/CT, an imaging biomarker predictive of CV events which modulates with treatments (statins) known to lower vascular risk. Prior trials of TNF inhibitors for psoriasis have failed to show improvement in vascular inflammation. Ustekinumab, an approved psoriasis therapy, targets IL12/23, cytokines upregulated in psoriasis and vascular disease. Type of Study: Randomized, double blind, placebo controlled trial (NCT02187172) Methods: Patients had PASI  $\geq 12$  and BSA  $\geq 10$  and were washed out of psoriasis treatments. Patients were randomized (1:1) to ustekinumab vs. placebo for 12 weeks. The primary outcome was aortic inflammation measured by target-to-background ratio (TBR) on FDG-PET/CT scans obtained at weeks 0 and 12 following 60 minute radiotracer uptake time. Results: Of 62 patients screened, 43 patients were randomized (mean age 42, mean PASI 20) and 41 completed the 12-week randomized trial. PASI75 was achieved by 77% treated with ustekinumab and 11% treated with placebo at Week 12 ( $p < 0.001$ ). Total aortic vascular inflammation was an average TBR of  $1.31 \pm 0.15$  at baseline and at week 12 was reduced by 6.6% in the ustekinumab group while the placebo group TBR increased by 12.1% ( $p = 0.001$ ). Conclusion: Ustekinumab improves psoriasis and reduces vascular inflammation as measured by FDG-PET/CT. These findings provide experimental evidence that inhibition of IL12/23 in psoriasis may lower cardiovascular risk.

### **REFERENCES**

Gelfand JM, Neimann AL, Shin DB, Wang X, Margolis DJ, Troxel AB. Risk of myocardial infarction in patients with psoriasis. JAMA. 2006 Oct 11;296(14):1735-41. Mehta NN, Yu Y, Saboury B, Foroughi N, Krishnamoorthy P, Raper A, Baer A, Antigua J, Van Voorhees

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

2:30 pm - 2:40 pm

### **6703 - Apremilast for Behçet's Syndrome: A Phase III Randomized, Placebo-controlled, Double-blind Study /Yusuf Yazici, MD**

Objective 1: To evaluate the efficacy and safety of apremilast over 12 weeks in patients with Behçet's syndrome, including oral ulcers.

Objective 2: To assess the impact of apremilast on oral ulcers, ulcer pain, disease activity, and QOL outcomes in BS patients.

Objective 3: N/A

Background: Apremilast, an oral phosphodiesterase 4 inhibitor, demonstrated efficacy in a phase II Behçet's syndrome (BS) study. Apremilast was further evaluated in BS patients with active oral ulcers previously treated with  $\geq 1$  medication. Type of Study: Phase III, multicenter, international, randomized, placebo-controlled. Methods: 207 BS patients were randomized (1:1) to apremilast 30 mg BID or placebo for 12 weeks, followed by a 52-week active-treatment extension. Patients had active BS with  $\geq 3$  oral ulcers at randomization or  $\geq 2$  oral ulcers at screening and randomization without major organ involvement. Primary endpoint was area under the curve (AUC) for total number of oral ulcers over 12 weeks. Additional endpoints included assessments of ulcer pain, genital ulcers, skin lesions, overall disease activity (BS Activity Score [BSAS], Behçet's Disease Current Activity Index [BDCAI]) and quality of life (QOL) at Week 12. Results: The AUC for oral ulcers was significantly lower in the apremilast group ( $129.5 \pm 15.9$ ) vs. placebo ( $222.1 \pm 15.9$ ;  $P < 0.0001$ ). Oral ulcer pain ( $P < 0.0001$ ) and overall disease activity (BSAS:  $P < 0.0001$ ; BDCAI:  $P = 0.0335$ ) were significantly lower and QOL ( $P < 0.0001$ ) was significantly better in the apremilast group. Serious adverse events were observed in 3 apremilast patients (migraine, oral ulcer flare, genital ulcer, arthralgia, soft tissue injury) and 4 placebo patients (diarrhea, genital and fungal infections, oral ulcer flare, acne, acute febrile neutrophilic dermatosis, erythema multiforme). Conclusion: This phase III study shows that apremilast for 12 weeks reduces the number and pain of oral ulcers and overall disease activity, and improves QOL in BS patients with active oral ulcers.

### **REFERENCES**

NONE

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

2:40 pm - 2:50 pm

**6797 - Efficacy of IFX-1, an Anti-C5a Monoclonal Antibody, in an Open Label Phase 2a Study in Patients with Hidradenitis Suppurativa not Eligible for Adalimumab /Evangelos J Giamarellos-Bourboulis, MD, PhD**

Objective 1: clinical trial

Objective 2: hidradenitis suppurativa

Objective 3: N/A

Background: Hidradenitis suppurativa (HS) is a chronic, debilitating skin disease likely with an auto-inflammatory pathogenesis. Inhibition of the complement split product C5a that is crucially involved in pro-inflammatory effects and neutrophil activation may provide therapeutic benefit. IFX-1, a monoclonal antibody specific for human C5a, has high affinity and inhibits C5a activity in preclinical models. Methods: In this open-label, phase 2a study (NCT03001622), 12 patients were treated with weekly infusions of IFX-1 for 8 weeks and followed-up for additional 12 weeks. Efficacy variables included HS Clinical Response (HiSCR), abscess and inflammatory nodule (AN) count, HS-Physician's Global Assessment (HS-PGA). C5a was measured. Data are presented as median (range). Results: Subjects were 50 (22-69) years old, with a disease duration of 19.5 (3-35) years; all subjects were Hurley Stage III, with an AN count of 6 (3-11). Nine patients were refractory to previous adalimumab treatment. At Week 8, HiSCR was achieved by 9/12 subjects (95%-confidence-interval: 42.8 - 94.5), the median AN count was 2 (0-8). Treatment with IFX-1 resulted in a shift in subjects from "very severe" to "moderate", according to the HS-PGA. A sustained clinical response could be observed at Week 20 with HiSCR in 10/12 subjects and AN count of 2 (0, 8). C5a levels showed complete blockade during the entire treatment period. No drug related adverse events were reported. Conclusion: IFX-1 demonstrated sustained clinical response in severe HS. A larger Phase 2 study to confirm these positive results is currently being planned.

### **REFERENCES**

NONE

## **F061 - Late-breaking Research: Clinical Trials**

**Saturday, February 17 1:00 PM — 3:00 PM**

**Ballroom 20A**

2:50 pm - 3:00 pm

**6515 - A Pilot Phase 2a Study of the Safety and Efficacy of Bertilimumab, an Anti-eotaxin-1 Antibody, in Bullous Pemphigoid /Sharon Baum, MDMP**

Objective 1: Evaluate the safety and tolerability of bertilimumab in patients with bullous pemphigoid

Objective 2: Evaluate the potential steroid-sparing effect of bertilimumab

Objective 3: N/A

Background: Patients with moderate-to-extensive Bullous Pemphigoid (BP) often receive 0.5-1.0 mg/kg prednisone with a 6-12 month taper, which can result in immunosuppression, HPA axis suppression, and other serious side effects in an elderly population. BP lesions and blister fluid have been shown to contain eotaxin-1, an eosinophil chemoattractant. We performed a pilot study to evaluate the safety and efficacy of bertilimumab, a monoclonal antibody targeting eotaxin-1, in patients with moderate-to-extensive BP. Type of study: Phase 2a, single arm, open label. Methods: Subjects meeting enrollment criteria receive intravenous bertilimumab 10mg/kg, 3 doses biweekly, and prednisone at a maximum initial dose of 30 mg. The primary endpoint is safety and tolerability; key secondary endpoints include the mean BPDAI score and the percentage of patients achieving 50%, 75% and 90% improvement by day 84. Results: Six subjects enrolled to date had a mean age at enrollment of 76. Bertilimumab was well tolerated with 4 AEs reported, 3 of which were mild. The single SAE was unrelated to bertilimumab (femoral angiography in a subject with peripheral arterial disease). The mean baseline BPDAI total activity score was 56±31 with a mean improvement of 85% (p=0.0096). All subjects achieved >50% improvement and 4/6 had >90% improvement. The mean prednisone dose fell from 26±7 mg to 8±6 mg (p=0.0145) over the same time. Conclusion: In this study, patients with moderate-to-extensive BP experienced rapid improvement in their BPDAI scores despite a low prednisone dose and a rapid taper, suggesting bertilimumab may have a corticosteroid-sparing effect in BP.

### **REFERENCES**

Murrell DF, Daniel BS, Joly P, et al. Definitions and outcome measures for bullous pemphigoid: recommendations by an international panel of experts. J Am Acad Dermatol 2012; 66:479-485. Wakugawa M, Nakamura K, Hino H, et al. Elevated levels of eotaxin and