

Supplementary materials for:

Exploring bimekizumab for psoriasis treatment: Multicenter perspectives from Canada

Fiona Lovegrove^{1,2}, Rachel Asiniwasis³, Natalie Cunningham^{4,5}, Jennifer Lipson^{6,7,8,9}, Ashley O'Toole¹⁰, Kerri Purdy¹¹, Ashley Sutherland¹¹, Kirsten Walker^{5,12,13}, Melinda Gooderham^{5,10,14}

1. Lovegrove Dermatology, London, ON, Canada
2. Schulich School of Medicine and Dentistry, Department of Medicine, London, ON, Canada
3. Origins Dermatology Centre, Regina, SK, Canada
4. Maritime Dermatology, Halifax, NS, Canada
5. Probit Medical Research, Waterloo, ON, Canada
6. The Ottawa Hospital, Ottawa, ON, Canada
7. University of Ottawa, Ottawa, ON, Canada
8. West Ottawa Specialty Care, Ottawa, ON, Canada
9. Children's Hospital of Eastern Ontario, Ottawa, ON, Canada
10. SKiN Health, Peterborough, ON, Canada
11. Dalhousie University, Department of Medicine, Halifax, NS, Canada
12. University of Saskatchewan, Saskatoon, SK, Canada
13. Walker Dermatology, Saskatoon, SK, Canada
14. Queen's University, Kingston, ON, Canada

Corresponding Author:

Fiona Lovegrove
Lovegrove Dermatology
140 Oxford Street East, Suite 207
London ON N6A 5R9
Phone: 519-204-3959
Email: lovegrovederm@gmail.com

Details of Statistical Analysis

A two-sample t-test was used for the comparisons of PASI scores between bio-naïve and bio-experienced cohorts. A two-proportion Z-test was used to calculate the comparison between the proportion of patients with PASI score of ≤ 2 and those with PASI score of > 2 . Pearson correlation was used to determine the relationship between DLQI and efficacy. Point-biserial correlation was used to determine the relationship between DLQI and discontinuations and PASI scores and discontinuations. Fisher's exact test was used to examine the association between previous biologics exposure (bio-naïve/bio-experienced) and discontinuation of bimekizumab treatment (discontinued/ongoing).

Table S1. Bimekizumab Treatment Characteristics

Bimekizumab Treatment Characteristics	N=154
Bimekizumab maintenance dosing, n (%) [*]	
320 mg every 8 weeks	129 (84)
320 mg every 4 weeks	18 (12)
Other [†]	7 (5)
Duration of treatment (months), mean ± SD, median (range) (n=119)	13.3 ± 16.7 8.5 (0.4-68.3)
Current bimekizumab treatment status, n (%)	
Ongoing	130 (84)
Discontinued	24 (16)
Reason for choosing bimekizumab, n (%) [‡] (n=147)	
Failure of previous biologic(s)	79 (54)
Known efficacy/safety profile	40 (27)
Psoriatic arthritis comorbidity	37 (25)
Severe disease or special site involvement	29 (20)
Failure of previous oral systemic treatment	24 (16)
Pustular disease	8 (5)
Contraindication or no access to other therapy	8 (5)
Drug coverage	2 (1)

* Patients were treated with 320 mg (given as 2 subcutaneous injections of 160 mg each) every 4 weeks for the first 16 weeks.

[†] Includes 320 mg every 2 weeks, every 3 weeks, every 6 weeks, loading doses only, and undetermined.

[‡] Selecting more than one reason was possible.

N = total number of patients in the cohort; n = number of patients in specific analysis.

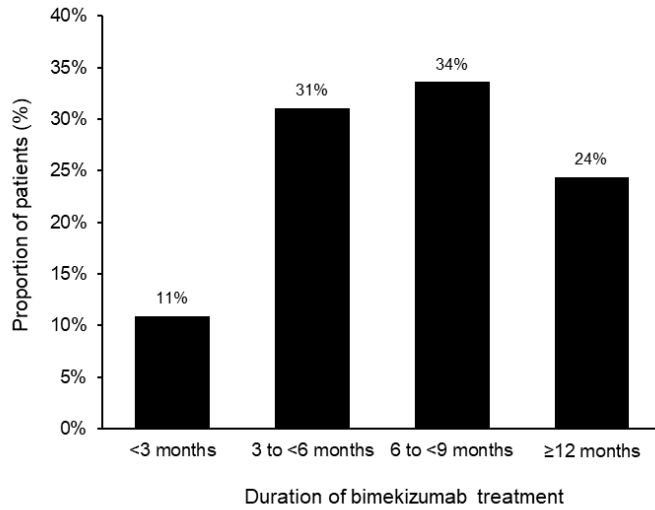
Table S2. Safety profile of bimekizumab

Event	Number (%) of patients with event (N=154)
Any AE	50 (32)
Serious AEs	3 (2)
AEs leading to discontinuation	9 (6)
Oral candidiasis	36 (23)
Fungal infections (other than oral candidiasis)	5 (3)
Other infections	9 (6)
Psoriasis flare/worsening disease	6 (4)
Administration-related reactions*	5 (3)

* Includes infusion site reactions, headaches, fatigue, and malaise post injection.

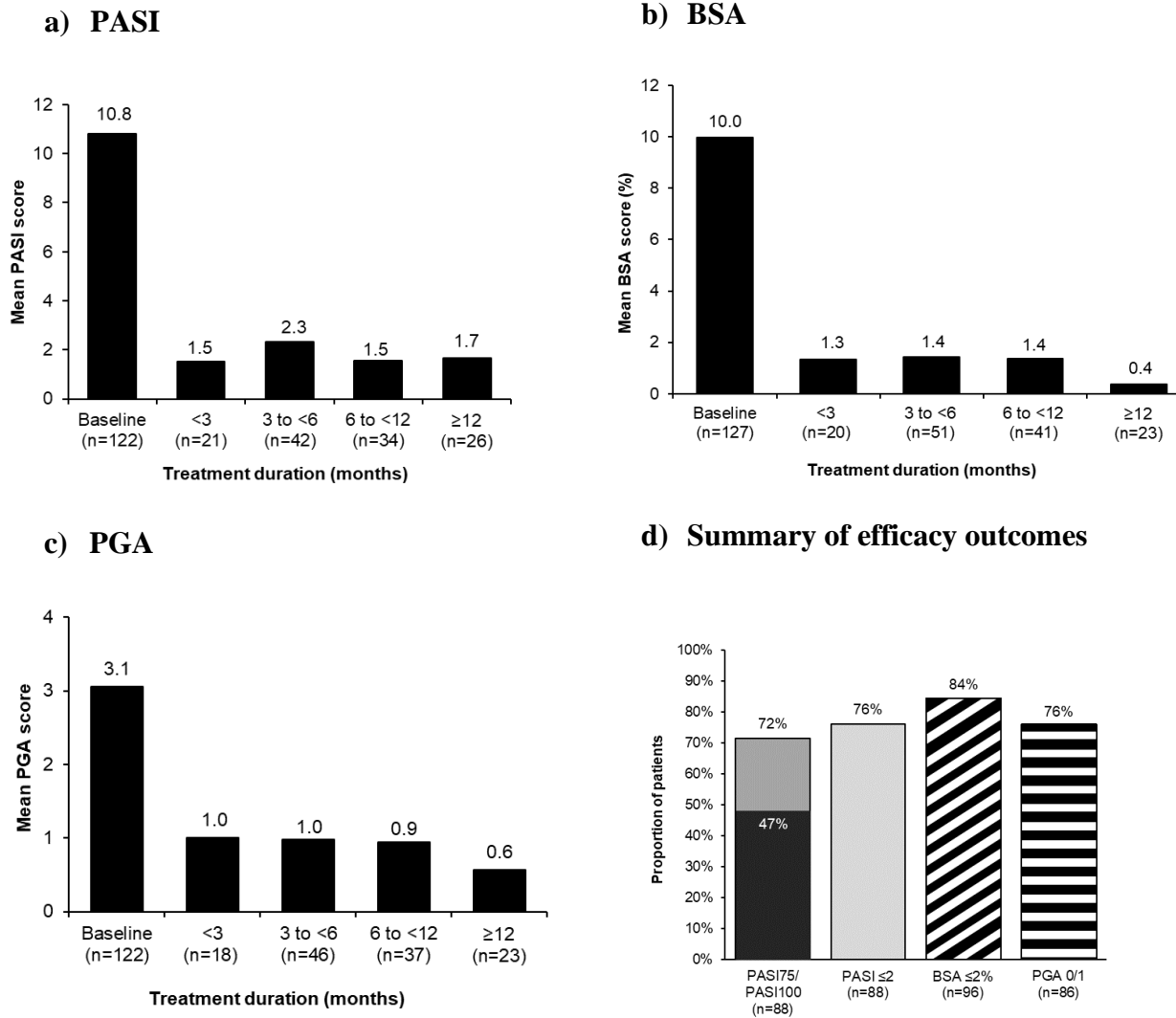
AE = adverse event; N = total number of patients in the cohort.

Figure S1. Duration of Bimekizumab Treatment



Duration of treatment for the whole population (N =154) shown in 3-month periods.

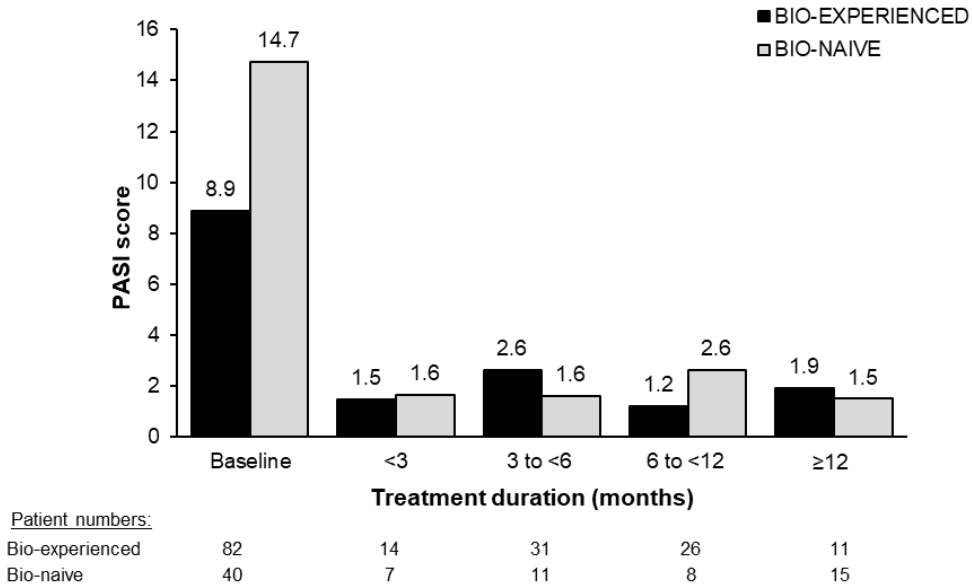
Figure S2. Efficacy Over Time



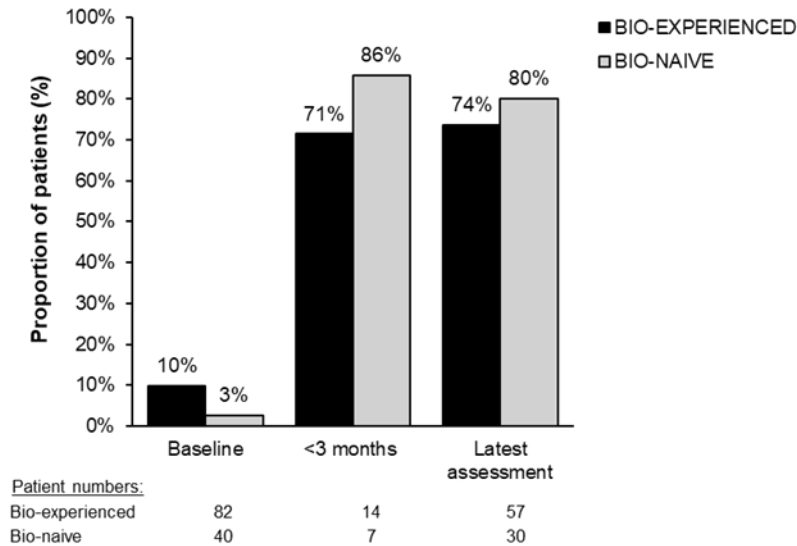
Mean a) PASI, b) BSA, and c) PGA scores over time. Only patients with available assessments at each time point were included in the analysis. Data are mean scores. d) Proportion of patients reaching PASI75/PASI100, PASI ≤2, BSA ≤2% and PGA 0 or 1 out of all patients with the available data at the latest assessment. BSA = Body Surface Area; PASI = Psoriasis Area and Severity Index; PGA = Physician Global Assessment.

Figure S3. PASI Scores in Bio-Experienced and Bio-Naive Patients Over Time

a) PASI scores over time



b) Proportion of patients with PASI scores of ≤ 2

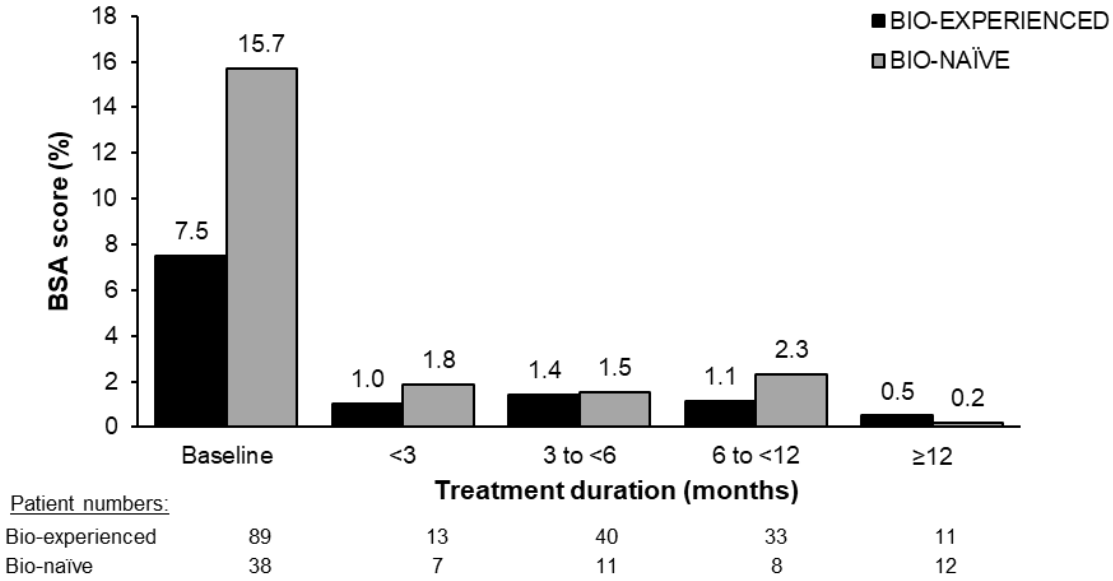


Comparison of PASI score between bio-naïve and bio-experienced patients. a) Only patients with available assessments at each time point were included in the analysis. PASI scores are means out of the number of patients with data at that time interval. b) Percentages are calculated from the number of patients who had PASI score of ≤ 2 out of all patients with data at the specified timepoint.

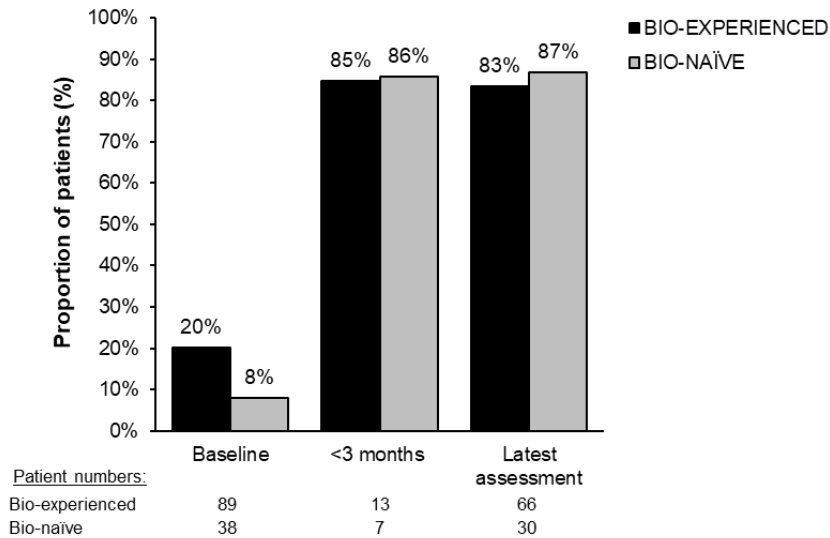
PASI = Psoriasis Area and Severity Index.

Figure S4. BSA Scores in Bio-Experienced and Bio-Naïve Patients Over Time

a) BSA scores over time



b) Proportion of patients with BSA scores of ≤2%



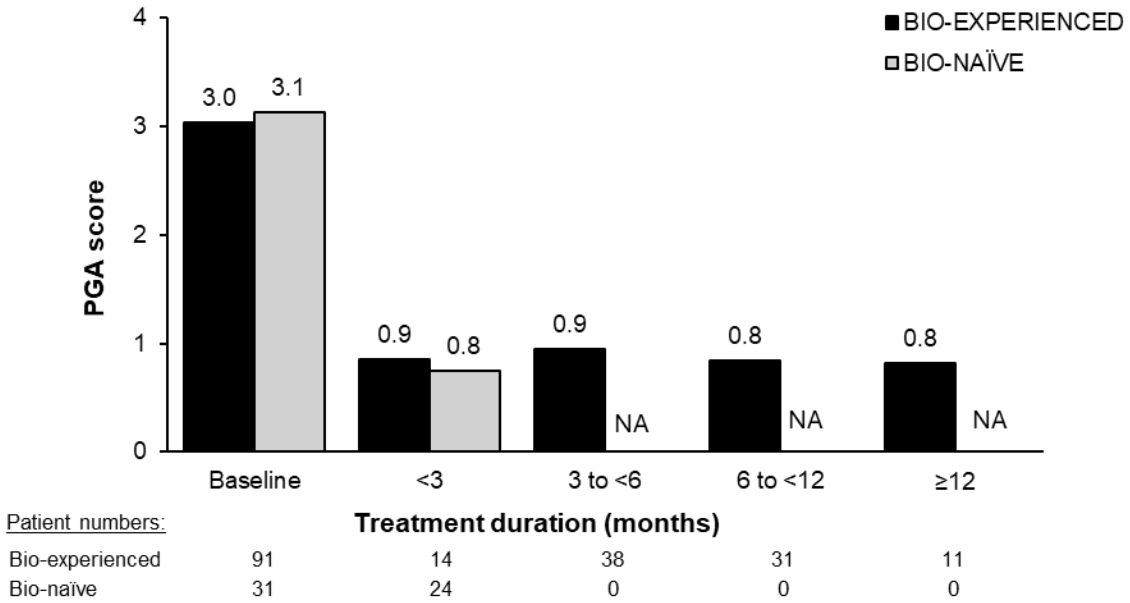
Analysis of BSA scores in the cohort. a) Only patients with available assessments at each time point were included in the analysis. BSA scores are means out of the number of patients with data at that time interval. b) Percentages

are calculated from the number of patients who had BSA score of ≤ 2 out of all patients with data at the specified timepoint.

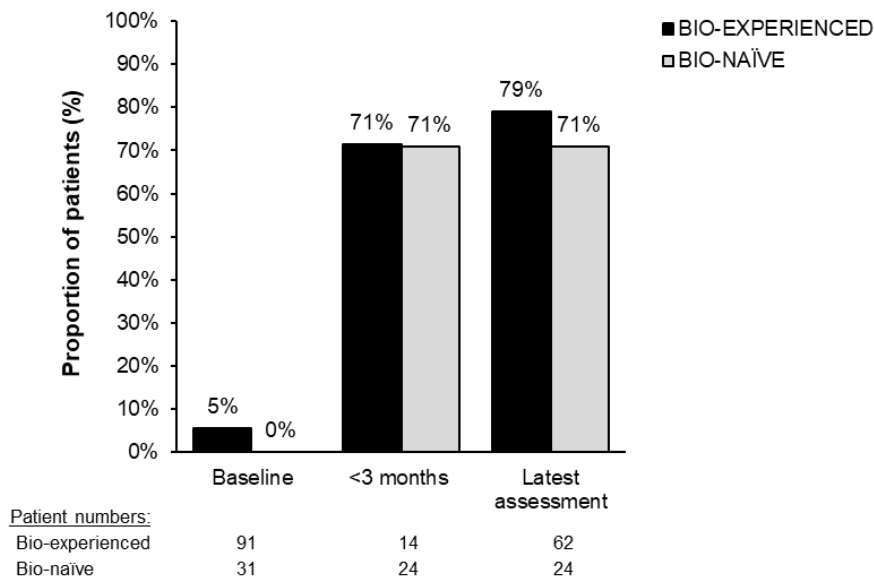
BSA = Body Surface Area.

Figure S5. PGA Scores in Bio-Experienced and Bio-Naïve Patients Over Time

a) PGA scores over time



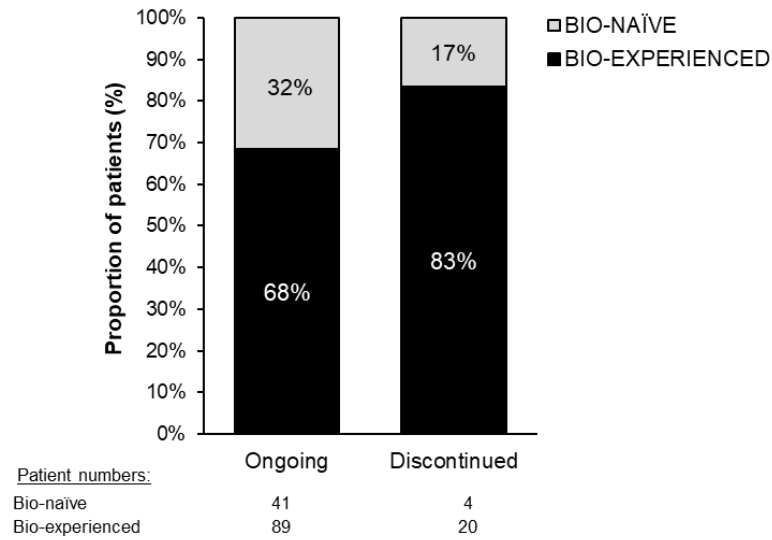
b) Proportion of patients with PGA scores of 0/1



Analysis of PGA scores in the cohort. a) Only patients with available assessments at each time point were included in the analysis. PGA scores are means out of the number of patients with data at that time interval. b) Percentages are calculated from the number of patients who had PGA score of 0/1 out of all patients with data at the specified timepoint.

PGA = Physician Global Assessment.

Figure S6. Previous Biologics Experience in Ongoing and Discontinued Cohorts



Proportion of bio-naïve and bio-experienced patients among those who discontinued bimekizumab treatment and those who remained on bimekizumab treatment at data cut-off. Percentages are calculated from the total number of patients in each cohort.