

SUPPLEMENTARY MATERIAL

Baricitinib Efficacy Through 4 Years in Responders and Safety up to 5 Years in Adults with Severe Alopecia Areata: Final Results From BRAVE-AA1 and BRAVE-AA2

Ruth Ann Vleugels¹, Bianca Maria Piraccini², Natasha Mesinkovska³, Arash Mostaghimi¹, Yutaka Shimomura⁴, Angelina Sontag⁵, Fionn McSwiney⁵, Najwa Somani⁵, Hitendra Pandey⁵, Karen Denning⁵, Brett King⁶

Affiliations:

¹Dept of Dermatology, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA,

²Piraccini Medical Center, Bologna, Italy,

³Dept of Dermatology, University of California, Irvine, CA, USA,

⁴Dept of Dermatology, Yamaguchi University School of Medicine, Yamaguchi, Japan, ⁵Eli Lilly and Company, Indianapolis, IN, USA,

⁶Yale University School of Medicine, New Haven, CT, USA

Corresponding author: Ruth Ann Vleugels

Brigham and Women's at 221 Longwood

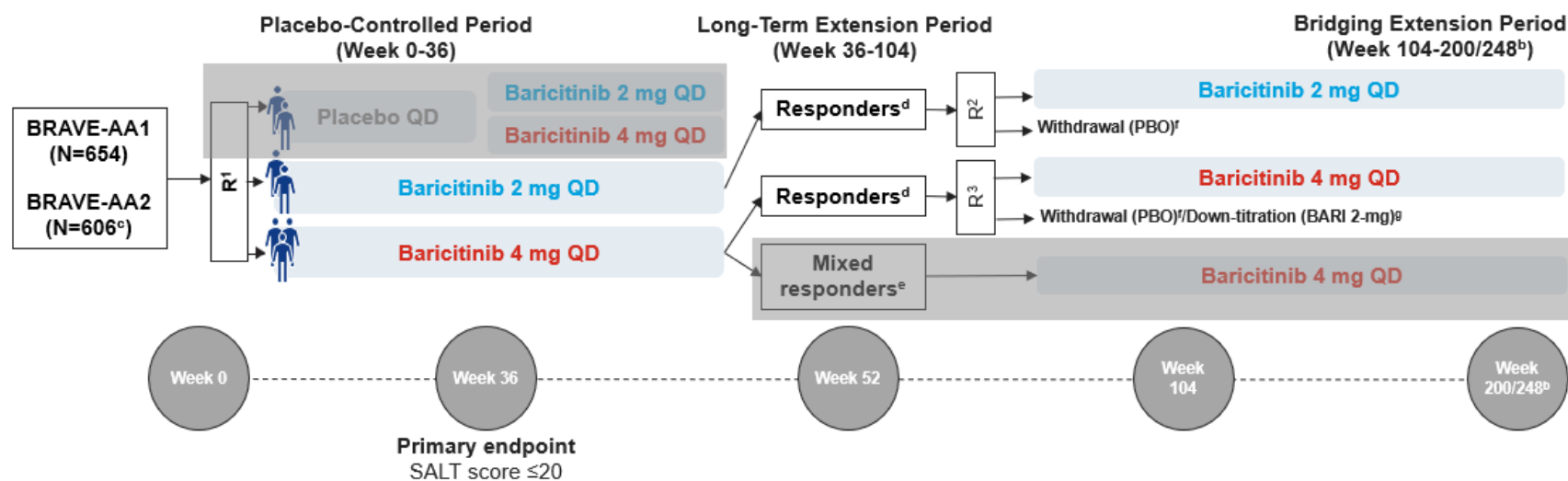
Boston, MA 02115

United States

Phone: (617) 732-4918

E-mail: rvleugels@bwh.harvard.edu

Figure S1: Study design^a and description of efficacy analysis population



Note: R¹: 2:2:3 (placebo:2 mg:4 mg); R²: BRAVE-AA1: 3:1 (2 mg [same dose]:placebo [withdrawal from 2 mg]); BRAVE-AA2: All responders continued on 2 mg (same dose, no randomization); R³: BRAVE-AA1: 3:1 (4 mg [same dose]:placebo [withdrawal from 4 mg]); BRAVE-AA2: 1:1 (4 mg [same dose]:2 mg [down-titration from 4 mg]).

Abbreviations: BARI, baricitinib; ClinRO, clinician-reported outcome; EB, eyebrow; EL, eyelash; PBO, placebo; QD, once daily; R, randomization; SALT, Severity of Alopecia Tool.

^a Figure is not the full BRAVE-AA1 and BRAVE-AA2 program.

^b In BRAVE-AA1 and BRAVE-AA2, there was a study addendum implemented up to Week 248 in Mexico and Argentina, respectively, to allow continued access to baricitinib for an additional 48 weeks.

^c BRAVE-AA2 includes N = 60 Maximized Extended Enrollment patients from China.

^d Baricitinib 4 mg-treated and 2 mg-treated patients with SALT score ≤20 at Week 52.

^e Baricitinib 4 mg–treated patients who had SALT score >20 at Week 52 but had reached SALT score ≤20 at prior visit(s) and/or patients with ClinRO EB/EL scores ≥2 at baseline who had achieved a ClinRO EB/EL improvement from baseline of ≥2 points at Week 52.

^f BRAVE-AA1 only.

^g BRAVE-AA2 only.

Table S1: Summary of serious adverse events by preferred term within system organ class

n (%) [IR]	Extended Baricitinib AA ^a		All Baricitinib AA
	Baricitinib 2 mg (N = 383)	Baricitinib 4 mg (N = 565)	(N = 1303)
Patients with ≥1 SAE	12 (3.1) [2.1]	34 (6.0) [2.8]	77 (5.9) [2.5]
Infections and infestations	2 (0.5) [0.3]	6 (1.1) [0.5]	17 (1.3) [0.5]
COVID-19 pneumonia	1 (0.3) [0.2]	0	4 (0.3) [0.1]
COVID-19	0	1 (0.2) [0.1]	3 (0.2) [0.1]
Appendicitis	0	1 (0.2) [0.1]	2 (0.2) [0.1]
Pyelonephritis	1 (0.3) [0.2]	1 (0.2) [0.1]	2 (0.2) [0.1]
Appendicitis perforated	0	0	1 (0.1) [0.0]
Diverticulitis	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Herpes zoster	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Lyme disease	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Pneumonia	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Rhinitis	0	0	1 (0.1) [0.0]
Varicella	0	0	1 (0.1) [0.0]
Viral infection	0	0	1 (0.1) [0.0]
Injury, poisoning and procedural complications	5 (1.3) [0.9]	7 (1.2) [0.6]	17 (1.3) [0.5]
Ankle fracture	2 (0.5) [0.3]	1 (0.2) [0.1]	4 (0.3) [0.1]

Hand fracture	2 (0.5) [0.3]	1 (0.2) [0.1]	3 (0.2) [0.1]
Craniofacial fracture	0	2 (0.4) [0.2]	2 (0.2) [0.1]
Foot fracture	1 (0.3) [0.2]	0	2 (0.2) [0.1]
Ligament sprain	0	0	2 (0.2) [0.1]
Anastomotic ulcer	0	0	1 (0.1) [0.0]
Clavicle fracture	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Lumbar vertebral fracture	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Radius fracture	1 (0.3) [0.2]	0	1 (0.1) [0.0]
Thermal burn	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Cardiac disorders	2 (0.5) [0.3]	3 (0.5) [0.2]	6 (0.5) [0.2]
Cardiac failure congestive	1 (0.3) [0.2]	0	2 (0.2) [0.1]
Acute myocardial infarction	1 (0.3) [0.2]	0	1 (0.1) [0.0]
Aortic valve incompetence	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Atrial fibrillation	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Ventricular tachycardia	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Gastrointestinal disorders	0	3 (0.5) [0.2]	6 (0.5) [0.2]
Colitis	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Flatulence	0	0	1 (0.1) [0.0]
Food poisoning	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Gastric stenosis	0	0	1 (0.1) [0.0]

Inguinal hernia	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Obstruction gastric	0	0	1 (0.1) [0.0]
Peptic ulcer hemorrhage	0	0	1 (0.1) [0.0]
Reproductive system and breast disorders	1 (0.3) [0.2]	1 (0.2) [1]	6 (0.5) [0.2]
Adenomyosis ^a	1 (0.4) [0.3]	0	1 (0.1) [0.1]
Benign prostatic hyperplasia ^b	0	0	1 (0.2) [0.1]
Endometrial hyperplasia ^a	0	0	1 (0.1) [0.1]
Heavy menstrual bleeding ^a	0	0	1 (0.1) [0.1]
Vaginal dysplasia ^a	0	0	1 (0.1) [0.1]
Varicocele ^b	0	1 (0.5) [0.2]	1 (0.2) [0.1]
General disorders and administration-site conditions	1 (0.3) [0.2]	3 (0.5) [0.2]	5 (0.4) [0.2]
Drug withdrawal syndrome	0	1 (0.2) [0.1]	2 (0.2) [0.1]
Asthenia	1 (0.3) [0.2]	0	1 (0.1) [0.0]
Chest pain	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Cyst	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Hepatobiliary disorders	1 (0.3) [0.2]	4 (0.7) [0.3]	5 (0.4) [0.2]
Cholecystitis acute	1 (0.3) [0.2]	2 (0.4) [0.2]	3 (0.2) [0.1]
Hepatitis acute	0	2 (0.4) [0.2]	2 (0.2) [0.1]
Neoplasms benign, malignant, and unspecified	0	2 (0.4) [0.2]	5 (0.4) [0.2]
B-cell lymphoma	0	1 (0.2) [0.1]	1 (0.1) [0.0]

Benign breast neoplasm	0	0	1 (0.1) [0.0]
Chronic lymphocytic leukemia	0	0	1 (0.1) [0.0]
Endometrial cancer stage I ^a	0	0	1 (0.1) [0.1]
Uterine leiomyoma ^a	0	1 (0.3) [0.1]	1 (0.1) [0.1]
Nervous system disorders	0	3 (0.5) [0.2]	5 (0.4) [0.2]
Sciatica	0	1 (0.2) [0.1]	2 (0.2) [0.1]
Guillain-Barre syndrome	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Intracranial aneurysm	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Stiff person syndrome	0	0	1 (0.1) [0.0]
Blood and lymphatic system disorders	0	1 (0.2) [0.1]	2 (0.2) [0.1]
Anemia	0	0	1 (0.1) [0.0]
Lymphadenopathy	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Eye disorders	0	1 (0.2) [0.1]	2 (0.2) [0.1]
Glaucoma	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Keratitis	0	0	1 (0.1) [0.0]
Pregnancy, puerperium, and perinatal conditions	0	1 (0.2) [0.1]	2 (0.2) [0.1]
Abortion missed	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Abortion spontaneous	0	0	1 (0.1) [0.0]
Respiratory, thoracic, and mediastinal disorders	1 (0.3) [0.2]	0	2 (0.2) [0.1]
Pulmonary embolism	1 (0.3) [0.2]	0	2 (0.2) [0.1]

Acute respiratory failure	0	0	1 (0.1) [0.0]
Endocrine disorders	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Inappropriate antidiuretic hormone secretion	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Investigations	0	0	1 (0.1) [0.0]
Intraocular pressure increased	0	0	1 (0.1) [0.0]
Metabolism and nutrition disorders	0	0	1 (0.1) [0.0]
Hypokalemia	0	0	1 (0.1) [0.0]
Product issues	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Device dislocation	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Psychiatric disorders	0	0	1 (0.1) [0.0]
Depression	0	0	1 (0.1) [0.0]
Renal and urinary disorders	0	0	1 (0.1) [0.0]
ureterolithiasis	0	0	1 (0.1) [0.0]
Surgical and medical procedures	0	0	1 (0.1) [0.0]
Sleeve gastrectomy	0	0	1 (0.1) [0.0]
Vascular disorders	0	1 (0.2) [0.1]	1 (0.1) [0.0]
Hypertension	0	1 (0.2) [0.1]	1 (0.1) [0.0]

Abbreviations: AA, alopecia areata; BARI, baricitinib; COVID-19, coronavirus disease 2019; IR, incidence rate; n, number of patients in the specified category; N, number of patients in the analysis set; PBO, placebo; SAE, serious adverse event.

^a *Denominator and patient-years adjusted because event is specific to females: N = 232 (PBO), N = 241 (BARI 2 mg), N = 350 (BARI 4 mg), N = 804 (All BARI AA).*

^b ***Denominator and patient-years adjusted because event is specific to males: N = 156 (PBO), N = 142 (BARI 2 mg), N = 215 (BARI 4 mg), N = 499 (All BARI AA).***

Table S2. Summary of baricitinib AESI patient cases through Week 248 in BRAVE-AA1 and BRAVE-AA2

Event	Age (Sex)	Dose (mg)	Duration of Tx	Risk Factors/History	
VTE: PE (prothrombin gene heterozygosity)	65, F	2 mg	638 days	- Obesity (BMI:34.4 kg/m²) - Insulin resistance - MH of sarcoidosis (1995-1997)	COVID-19 PNA and acute respiratory failure, reported on same day as PE
VTE: PE and DVT	46, F	2 mg	1048 days	Obesity with BMI of 35.8 kg/m² (weight ↑ from BL at 75.3 kg to 94.5 kg)	- Use of OCP (estrogen) - T2DM, former smoker
MACE (Acute MI)	48*, M	2 mg	~9 months	- Current tobacco use - Obesity (BMI:34 kg/m²) - Hypercholesterolemia	- Atrial Fibrillation - HTN (Treated with lisinopril) ↓ HDL-C and ↑ TG at study entry
B-Cell Lymphoma	40*, M	4 mg	~4 months	Alcohol and tobacco use	
Breast Cancer (ductal carcinoma)	56*, F	4 mg	~10 months	Previous tobacco use and current alcohol use	Previous history of ovarian cyst and

<i>in situ)</i>					<i>hysterectomy</i>
<i>Chronic Lymphocytic Leukemia</i>	<i>55, M</i>	<i>2 mg</i>	<i>520 days</i>	• <i>No known risk factors</i>	
<i>Malignant Melanoma in situ (upper left arm)</i>	<i>58, F</i>	<i>2 mg</i>	<i>487 days</i>	• <i>Family hx of Melanoma</i>	• <i>Hx of sunburns; Fitzpatrick type I</i>
<i>Endometrial cancer stage 1</i>	<i>70*, F</i>	<i>2 mg</i>	<i>833 days</i>	• <i>Thyroxine for hypothyroidism</i>	
<i>Breast cancer</i>	<i>65*, F</i>	<i>2 mg</i>	<i>742 days</i>	• <i>Obesity (BMI; 33.1 kg/m²)</i>	• <i>Comorbid psoriasis</i>
<i>Malignant melanoma (left shoulder)</i>	<i>62*, F</i>	<i>4 mg</i>	<i>811 days</i>	• <i>White race</i>	• <i>Hx of Atopic dermatitis</i>
<i>Squamous Cell Carcinoma</i>	<i>67*, F</i>	<i>2 mg</i>	<i>~16 months</i>	• <i>White race</i>	• <i>Hx of Atopic Dermatitis</i>
<i>Basal Cell Carcinoma (left arm)</i>	<i>41, F</i>	<i>2 mg</i>	<i>481 days</i>	• <i>White race</i>	• <i>Hx of Atopic Dermatitis</i>

<i>Basal Cell Carcinoma (chin)</i>	<i>70*, F</i>	<i>2 mg</i>	<i>1135 days*</i>	<i>Prior BCC (L scapula) on study day 410 while on placebo</i>	<i>Lifelong sun exposure</i>
<i>Non-melanoma skin cancer</i>	<i>72*, F</i>	<i>4mg</i>	<i>1400 days</i>	<i>White race</i>	<i>Significant sun exposure</i>
<i>GI Perforation</i>	<i>31, M</i>	<i>2 mg/4 mg</i>	<i>631 days</i>	<i>Appendicitis perforated</i>	<i>Initially randomized to Bari 2 mg/day, rescued to 4 mg on day 367</i>

*Age at event onset. Otherwise age listed is at study entry.

Abbreviations: AESI=Adverse Events of Special Interest; BMI=Body Mass Index; DVT=Deep Vein Thrombosis; GI=Gastrointestinal; HDL-C=High Density Lipoprotein Cholesterol; HTN=Hypertension; Hx=History; OCP=Oral Contraceptive Pill; MACE=Major Adverse Cardiovascular Event; MI=Myocardial Infarction; PE=Pulmonary Embolism; T2DM=Type 2 Diabetes Mellitus; TG=Triglycerides; Tx=Treatment; VTE=Venous Thromboembolism.

Table S3: Laboratory summary

n [IR]	Extended Baricitinib AA		All Baricitinib AA
	Baricitinib 2 mg (N=383)	Baricitinib 4 mg (N=565)	(N=1303)
Anemia CTCAE Grade ≥ 3 (hemoglobin < 4.9 mmol/L [< 8.0 g/dL])	0	2 [0.2]	3 [0.1]
Neutrophils CTCAE Grade ≥ 3 (< 1.0 billion/L)	5 [0.9]	11 [0.9]	26 [0.9]
Lymphocytes CTCAE Grade ≥ 3 (< 0.5 billion/L)	0	4 [0.3]	8 [0.3]
Leukocytes CTCAE Grade ≥ 3 (< 2.0 billion/L)	0	0	0
Thrombocytosis (platelets > 600 billion/L)	2 [0.4]	6 [0.5]	14 [0.5]
ALT $\geq 3 \times$ ULN	11 [2.0]	24 [2.0]	57 [1.9]
AST $\geq 3 \times$ ULN	8 [1.5]	22 [1.9]	47 [1.5]
Bilirubin $\geq 2 \times$ ULN	0	9 [0.8]	10 [0.3]
CPK CTCAE Grade ≥ 3 ($> 5 \times$ ULN)	15 [2.7]	55 [4.6]	96 [3.1]
LDL cholesterol $\geq$ borderline high NCEP criteria (≥ 3.36 mmol/L [≥ 130 mg/dL]) ^a	82 [15]	178 [15]	392 [12.9]

Total cholesterol $\geq$ high NCEP criteria (≥ 6.21 mmol/L [≥ 240 mg/dL]) ^a	67 [12.3]	159 [13.4]	350 [11.5]
Triglycerides $\geq$ very high NCEP criteria (≥ 5.65 mmol/L [≥ 500 mg/dL]) ^a	3 [0.5]	7 [0.6]	19 [0.6]

Abbreviations: AA, alopecia areata; ALT, alanine aminotransferase; AST, aspartate aminotransferase; CPK, creatine phosphokinase; CTCAE, Common Terminology Criteria for Adverse Events; HDL-C, high-density lipoprotein cholesterol; IR, incidence rate; LDL, low-density lipoprotein; LDL-C, low-density lipoprotein cholesterol; n, number of patients in the specified category; N, number of patients in the safety analysis set; NCEP, National Cholesterol Education Program Expert Panel; ULN, upper limit of normal.

^a *To convert mmol/L to mg/dL, total cholesterol, LDL-C, and HDL-C were multiplied by 38.67 and triglycerides by 88.57.*

Table S4: Summary of efficacy outcomes at Week 200

Outcome	Week-52 responders	
	Baricitinib 2 mg (N=72)	Baricitinib 4 mg (N=133)
Proportion achieving SALT score^a ≤20, n/N (%)^b; (95% CI)		
Week 52	72/72 (100); (94.9, 100.0)	133/133 (100); (97.2, 100)
Week 200	61/72 (84.7); (74.7, 91.2)	115/133 (86.5); (79.6, 91.3)
Proportion achieving SALT score ≤10, n/N (%); (95% CI)		
Week 52	49/72 (68.1); (56.6, 77.7)	99/133 (74.4); (66.4, 81.1)
Week 200	52/72 (72.2); (61.0, 81.2)	101/133 (75.9); (68.0, 82.4)
Proportion achieving SALT₉₀, n/N (%); (95% CI)		
Week 52	38/72 (52.8); (41.4, 63.9)	94/133 (70.7); (62.4, 77.7)
Week 200	47/72 (65.3); (53.8, 75.2)	98/133 (73.7); (65.6, 80.4)
Proportion achieving ClinRO Measure for Eyebrow Hair Loss™ 0 or 1^c with ≥2-point improvement from baseline, n/N (%); (95% CI)		
Week 52	23/42 (54.8); (39.9, 68.8)	59/84 (70.2); (59.8, 79.0)
Week 200	29/42 (69.0); (54.0, 80.9)	71/84 (84.5); (75.3, 90.7)
Proportion achieving ClinRO Measure for Eyelash Hair Loss™ 0 or 1^c with ≥2-point improvement from baseline, n/N (%); (95% CI)		
Week 52	19/34 (55.9); (39.5, 71.1)	50/70 (71.4); (59.9, 80.7)
Week 200	28/34 (82.4); (66.5, 91.7)	55/70 (78.6); (67.6, 86.6)

Proportion achieving Scalp Hair Assessment PRO™ 0 or 1^d n/N (%); (95% CI)		
Week 52	48/65 (73.8); (62.0, 83.0)	109/128 (85.2); (78.0, 90.3)
Week 200	51/65 (78.5); (67.0, 86.7)	103/128 (80.5); (72.8, 86.4)
Proportion achieving PRO Measure for Eyebrow™ 0 or 1^c, n/N (%); (95% CI)		
Week 52	24/44 (54.5); (40.1, 68.3)	53/85 (62.4); (51.7, 71.9)
Week 200	67/85 (78.8); (69.0, 86.2)	29/44 (65.9); (51.1, 78.1)
Proportion achieving PRO Measure for Eyelash™ 0 or 1^c with ≥2-point improvement from baseline, n/N (%); (95% CI)		
Week 52	38/68 (55.9); (44.1, 67.1)	16/31 (51.6); (34.8, 68.0)
Week 200	23/31 (74.2); (56.8, 86.3)	50/68 (73.5); (62.0, 82.6)

Abbreviations: CI, confidence interval; ClinRO, clinician-reported outcome; mLOCF, modified last observation carried forward; n, number of patients in the specified category; N, total population size; PRO, patient-reported outcome; SALT, Severity of Alopecia Tool; SALT₉₀, ≥90% improvement from baseline in SALT score.

^a The SALT score indicates the percentage of scalp hair loss. Subscripts of SALT indicate the percentage of improvement in score from baseline.

^b Proportions were calculated based on mLOCF.

^c A ClinRO or PRO score of 0 indicates full coverage, and a score of 1 indicates minimal gaps in eyebrows or eyelashes.

^d A Scalp Hair Assessment PRO score of 0 indicates no missing hair ('0% of my scalp is missing hair; I have a full head of hair'), and a score of 1 indicates a limited area ('1%-20% of my scalp is missing hair').

Table S5. List of ethics review boards for BRAVE-AA1 and BRAVE-AA2

BRAVE-AA1 Ethics Review Boards

Seoul National University Hospital, 101 Daehak-ro, Jongno-gu, Seoul , Korea
Seoul National University Bundang Hospital, 82, Gumi-ro 173 beon-gil, Bundang-gu, Seongnam-si, Gyeonggido, Korea
Inha University Hospital, 27 Inhang-Ro, Jung-Gu, Incheon, Korea
Kyunghee University Hospital at Gangdong, 892 Dongnam-ro, Gangdong-gu, ERB Department, Gangdong, Seoul, Seoul, Korea
Eunpyeong St. Mary's Hospital, 1021, Tongil-ro, Eunpyeong-gu, Seoul, Seoul, Korea
Pusan National University Hospital, IRB, 179, Gudeok-ro, Seo-gu, Busan, Korea
Chungnam National University Hospital, 2F, Biomedical Fusion Center, Chungnam National Uni Hosp, 266, Munhwa-ro, Jung-gu, Dae Jeon, Dae Jeon, Korea
Chonbuk National University Hospital, 20 Geonjiro Deokjin gu, Jeonju, Jeon Ju-City, Jeon Ra Buk-Do, Korea
Konkuk University Medical Center, 120 1, Neungdongro, Gwangjingu, ERB Department, B3 Floor, Seoul, Korea
Kyung Pook National University Hospital, 130, Dongdeok-ro, Jung-gu, Daegu, Korea
Chungang University Hospital, IRB, 102 Heukseok-ro, Dongjak-gu, Seoul, Korea
Hospital Universitario Dr. Jose Eleuterio Gonzalez, Ave. Madero y Gonzalitos S/N, Col. Mitras Centro, C.P., Monterrey, Nuevo Leon, Mexico
Hospital la Misión, Avenida del Hospital 112, 1º y 2º piso, Sertoma, Guadalajara, Jalisco, Mexico
Hospital General de Culiacan Dr Bernardo J. Gastelum, Juan Aldama S/N Esq. con Edo. de Nayarit, Col. Antonio Rosales, Culiacan, Sinaloa, Mexico
Comite de Etica Medi e Investiga del Hosp Cardi Aguascalient, Republica de Ecuador # 200, Aguascalientes, Mexico
Hospital Hispano SA de CV, Pedro Moreno #934 Col Centro, Guadalajara, Jalisco, Mexico
Comite de Etica en Investigacion del Hospital Arista, Arista 1525 Col Artesanos, Guadalajara, Mexico State, Mexico
Hospital Hispano SA de CV, Pedro Moreno #934 Col Centro, Guadalajara, Jalisco, Mexico
Clinica de Investigacion en Reumatología y Obesidad S. C., Av. Luis Perez Verdía 487 Col. Las Americas, Guadalajara, Jalisco, Mexico
Western Institutional Review Board - Connexus, 1019 39th Avenue SE, Suite 120, Puyallup, Washington, United States

Advarra Inc., 6940 Columbia Gateway Drive, Suite 110, Columbia, Maryland, United States

University of Miami, 1400 NW 10th Ave, Suite 1200A, Miami, Florida, United States

University of California, Irvine, 141 Innovation, Suite 250, Irvine, California, United States

University of Utah, 75 South 2000 East, RAB, Salt Lake City, Utah, United States

Western Institutional Review Board - Connexus, 1019 39th Avenue SE, Suite 120, Puyallup, Washington, United States

Oregon Health and Science University, 3181 Southwest Sam Jackson Park Road, Portland, Oregon, United States

Penn State University Milton S. Hershey Medical Center, 90 Hope Drive, PO Box 855, ASB Room 1140, Mail Code A115, Hershey, Pennsylvania, United States

Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, Ohio, United States

University of Pennsylvania Hospital, 3800 Spruce St., First Floor, Suite 151, Philadelphia, Pennsylvania, United States

Medical University of South Carolina, 1 South Park Cir., Bldg. 1 Suite 401, Charleston, South Carolina, United States

Biomedical Research Alliance of New York, 1981 Marcus Ave, Suite 210, Lake Success, New York, United States

BRAVE-AA2 Ethics Review Boards

Advarra Inc., 6940 Columbia Gateway Drive, IRB Suite 110, Columbia, MD 21046, United States

Quorum Review, Inc., 1501 Fourth Avenue, Suite 800, Seattle, WA 98101, United States

Kaiser Foundation Research Institute, 1800 Harrison Street, 16th Floor, (IRB), Oakland, CA 94612-3433, United States

Kaiser Permanente, 1800 Harrison St., 10th Fl., Oakland, CA 94612, United States

Western Institutional Review Board - Connexus, 1019 39th Avenue SE, Suite 120, Puyallup, WA 98374-2115, United States

HuaShan Hospital Affiliated To Fudan University, No. 12 Wulumuqi Mid Road, Shanghai, Shanghai 20040, China

Hamamatsu University School of Medicine, University Hospital, 1-20-1 Handayama Higashi-ku, Hamamatsu, Shizuoka 431-3192, Japan

Juntendo Tokyo Koto Geriatric Medical Center, 3-3-20 Shinsuna, Koto-ku, Tokyo 136-0075, Japan

Yokohama Rosai Hospital, 3211 Kozukue-Cho, Kohoku-Ku, Yokohama, Kanagawa 222-0036, Japan

Yamaguchi University Hospital, 1-1-1 Minamikogushi, Ube, Yamaguchi 755-8505, Japan

Osaka City University Hospital, 1-5-7 Asahimachi, Abeno-ku, Osaka, Osaka 545-8586, Japan

Tokyo Medical Univ. Hospital, 6-7-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo 160-0023, Japan

Juntendo University Hospital, 3-1-3 Hongo, Bunkyo-ku, Tokyo 113-8431, Japan

Kyorin University Hospital, 6-20-2 Shinkawa, Mitaka, Tokyo 181-8611, Japan

Fundação Faculdade de Medicina do ABC, CEP Faculdade de Medicina do ABC, Avenida Lauro Gomes, 2000 – Vila Sacadura Cabral, São Paulo, Sao Paulo 09060-870, Brazil

Irmandade da Santa Casa de Misericórdia de Porto Alegre, Serviço de Dermatologia, Rua Professor Annes Dias, 295 - Centro Histórico, Porto Alegre, Rio Grande do Sul 90020-090, Brazil

Faculdade de Ciências Médicas - UNICAMP, Dept Clín. Medica - Disciplina Dermatologia, R.Tessália Vieira Camargo, 126 - Cid.Univ. Z.Vaz, Campinas, Sao Paulo 13083-887, Brazil

Comitê de Ética em Pesquisa da Santa Casa de São Paulo, 305 – 4 andar, Santa Ceília, Sao Paulo 01221-010, Brazil

IDERJ – Instituto de Dermatologia e Estética do Brasil, Boulevard 28 de setembro, 77 Vila Isabel, Rio de Janeiro, Rio de Janeiro 20551-030, Brazil

Comitê de Ética e Pesquisa Em Seres Humanos do Hospital Pró Cardíaco, 8º andar, Botafogo, Rio de Janeiro 22270-005, Brazil

Comitê de Ética em Pesquisa com Seres Humanos da Pontifícia Universidade Católica de Campinas, Rua Professor Doutor Euryclides de Jesus Zerbini, 1516 – Parque Rural Fazenda Santa Cândida, Campinas, Sao Paulo 13087-571, Brazil

Comitê de Ética em Pesquisa do IAMSPE, 1º andar – sala 106, Vila Clementino, Sao Paulo 04029-000, Brazil

Tel Aviv Sourasky Medical Center, 6 Weizman St., Oncology Clinic, Tel Aviv Jaffa 6423906, Israel

Sheba Medical Center Ethics Committee, 2 Sheba Road Tel Hashomer, Ramat Gan 5265601, Israel

Rabin Medical Center, Ethics Committee 39 Jabotinski St., Petah Tiqva 4941492, Israel

Rambam Health Campus Ethics Committee, 8 Haaliya Hashniya St., POB 960, Haifa 3109601, Israel

Ha'Emek Medical Center, Ethics Committee, Yitshak Rabin Boulevard 21, Afula 1834111, Israel

Hadassah Medical Center, Kiryat Hadassah, Ein-Kerem, Jerusalem 9112001, Israel

Soroka Medical Center Ethics Committee, Itzhak Rager Boulevard P.O.Box 151, Beer-Sheva 8410101, Israel

Veracity Clinical Research Pty Ltd, Bellberry HREC 123 Glen Osmond Road, Eastwood, South Australia 5062, Australia

Sinclair Dermatology, Bellberry HREC 123 Glen Osmond Road, Eastwood, South Australia 5062, Australia

Woden Dermatology, Bellberry HREC 123 Glen Osmond Road, Eastwood, South Australia 5062, Australia

Skin Health Institute Inc., Bellberry HREC 123 Glen Osmond Road, Eastwood, South Australia 5062, Australia

Skin & Cancer Foundation Australia, Bellberry HREC 123 Glen Osmond Road, Eastwood, South Australia 5062, Australia

Fremantle Dermatology, Bellberry HREC 123 Glen Osmond Road, Eastwood, South Australia 5062, Australia

Clinical Trials SA Pty Ltd, Bellberry HREC 123 Glen Osmond Road, Eastwood, South Australia 5062, Australia

Stambouliau- Comité de Ética en Investigación Clínica, Paraná 755 6° "A" y "B", Buenos Aires, Buenos Aires C1017AAP, Argentina

Stambouliau- Comité de Ética en Investigación Clínica, Larrea 1381 3 "A", CABA, Buenos Aires C1117ABK, Argentina

CIEFC - COMITÉ INDEPENDIENTE DE ÉTICA PARA ENSAYOS EN FARMACOLOGÍA CLÍNICA , Av. Cabildo 1548, 3° "A", Buenos Aires, Ciudad Autónoma Buenos Aires C1426ABP, Argentina

Centro de Investigaciones Metabólicas (CINME), Viamonte 2278/80, CABA, Buenos Aires C1056ABJ, Argentina

Centro de Investigaciones Metabólicas (CINME), Uriburu 754, 3° 12 , Buenos Aires, Buenos Aires C1027AAP, Argentina

Stambouliau- Comité de Ética en Investigación Clínica, Paraná 755 6° "A" y "B", Buenos Aires, Buenos Aires C1017AAP, Argentina

Instituto de Neumonología y Dermatología, Arenales 2557, 1° Floor A, Ciudad Autónoma Buenos Aires, Ciudad Autónoma Buenos Aires C1425BEA, Argentina

Stat Research S.A., Av. Callao 875 3° F, Av. Callao 875 3° F, Ciudad Autónoma de Buenos Aires, Buenos Aires C1023AAB, Argentina

Chang Gung Memorial Hospital – Taipei, Institutional Review Board, 199, Tung Hwa North Road, Taipei 10507, Taiwan

National Taiwan University Hospital, National Taiwan University Hospital, 7, Chung-Shan South Road, Taipei 100, Taiwan

Chung Shan Medical University Hospital, The Institutional Review Board, No. 110, Sec.1, Chien-Kuo N. Road, Taichung 40201, Taiwan

NATIONAL CHENG-KUNG UNI. HOSP., Institutional Review Board, 138, Sheng Li Road, Tainan (R.O.C.) 704, Taiwan

Seoul National University Boramae Medical Center, 20, Boramae-ro 5-Gil, Dongjak-gu, Seoul 07061, Korea

Ajou University Hospital, 164, World cup-ro, Yeongtong-gu, Suwon-City, Gyeonggi-do 16499, Korea

Dankook University Hospital, Dankook University Hospital_IRB, Somang Building 3F, Manghyang-ro, Dongnam-gu, Cheonan, Chungcheongnam-do 31116, Korea

Soonchunhyang University Bucheon Hospital, 2F Clinical Trial Center, Mirae Medical building, 173, Buheung-ro, Bucheon, Gyeonggi 14584, Korea

Kyunghee University Hospital at Gangdong, 892 Dongnam-ro, Gangdong-gu, ERB Department, Gangdong, Seoul 05278, Korea

Severance Hospital, IRB, 50-1 Yonsei-ro, Seodaemun-gu, Seoul 03722, Korea
