



Emerald Health Pharmaceuticals Forms Scleroderma Clinical Advisory Board

SAN DIEGO, CA, July 12, 2018 – Emerald Health Pharmaceuticals Inc. (EHP), a company developing medicines based on cannabinoid science, has formed a Scleroderma Clinical Advisory Board (CAB), with key appointments including John Varga, M.D., Janet Pope, M.D., and Patricia Carreira, M.D. This CAB will serve as a strategic resource to EHP as it advances its lead product candidate, EHP-101, into clinical studies. EHP-101 is an oral formulation of a proprietary new chemical entity (NCE) derived from synthetic cannabidiol (CBD), being developed initially for multiple sclerosis and scleroderma. EHP has received Orphan Drug Designation for the scleroderma indication from the United States Food and Drug Administration and European Medicines Agency.

"We welcome Drs. Varga, Pope and Carreira to our scleroderma clinical advisory board," said Jim DeMesa, M.D., Chief Executive Officer of EHP. "As highly respected industry opinion leaders, whose work has influenced the treatment and management of scleroderma, their deep scientific and medical expertise will prove to be invaluable to us as we advance our lead product candidate, EHP-101, into clinical studies, planned for later this year."

Dr. John Varga is a rheumatologist, and the Director and founder of the Northwestern University Feinberg School of Medicine Scleroderma Program. He earned his medical degree at New York University and completed a residency in Internal Medicine at the Rhode Island Hospital-Brown University in Providence, Rhode Island. He had a Rheumatology Fellowship at Boston University and was a post-doctoral research fellow of the Arthritis Foundation in the laboratory of Sergio Jimenez at the University of Pennsylvania. Dr. Varga has served on National Institutes of Health Study Section panels since 1998 and is the director of an NIH-supported translational research program focusing on basic and clinical aspects of scleroderma and the discovery of novel therapies. He is also an elected member of AOA, the Association of American Physicians, and the Henry Kunkel Society. A prominent contributor to scientific journals in his field, Dr. Varga has published over 250 peer-reviewed articles, along with 150 reviews and textbook chapters, three books, and over a dozen chapters in *Up To Date*. He has trained over 20 clinical and research fellows, received the 2017 Lifetime Achievement Award of the Scleroderma Foundation and was listed in *Best Doctors in America* for 2017-2018.

Dr. Janet Pope is a Professor of Medicine in the Division of Rheumatology at the University of Western Ontario (UWO), Schulich School of Medicine, London, Ontario, Canada. She is the Division Head in Rheumatology at St. Joseph's Health Centre, London. Dr. Pope has mentored over 125 research students and trainees and has received the Distinguished Investigator Award from the Canadian Rheumatology Association, Rheumatologist of the Year from the Ontario Rheumatology Association, Department of Medicine Research Achievement Award, and the Dean's Award of Excellence in Research. She has published over 450 peer-reviewed articles, 15 chapters, 500 abstracts and several Cochrane meta-analysis reviews. Her research interests are



focused on scleroderma, systemic lupus erythematosus and rheumatoid arthritis, including outcome measurements, clinical trials and disease manifestations.

Dr. Patricia Carreira is Associate Professor of Rheumatology in the University Hospital 12 de Octubre, Universidad Complutense, Madrid Spain. After her residency and fellowship in Rheumatology in the University Hospital 12 de Octubre, she became interested in scleroderma at the Rheumatology Division of South Carolina, directed by Dr. E. Carwile LeRoy and Dr. Rick M. Silver. Dr. Carreira is a founding member of the EUSTAR (European Scleroderma Trials and Research Group) and INSYNC (International Systemic Sclerosis Inception Cohort Group). She has worked with international scleroderma groups, ESOS (European Scleroderma Observational Study), and SPIN (Scleroderma Patient-centered Intervention Network). Her professional clinical research has focused on epidemiological research centered on autoimmune systemic diseases, systemic lupus erythematosus, inflammatory myopathies, and systemic sclerosis. Dr. Carreira has coauthored more than 200 papers and textbook chapters, mainly related to scleroderma.

About Scleroderma

Systemic scleroderma (or systemic sclerosis, SSc) is a rare and chronic autoimmune disease, causing fibrosis of skin and internal organs and it can also affect blood vessels, muscles, and joints. The tissues of involved organs become hard and fibrous, causing them to function less efficiently. While the symptoms of SSc vary for each person, it can be life-threatening, depending on which parts of the body are affected and the extent of disease. The disease is more common in adults, with an estimated 180,000 people affected in the US. Currently, there are no approved treatments specific to SSc. Current therapies for scleroderma are limited in efficacy and may contain toxicities. New treatments and early diagnosis will be critical to help reduce the symptoms of systemic scleroderma and prevent further damage to the body.

About EHP-101

EHP-101 is a drug product candidate based on a proprietary aminoquinone NCE derived from synthetic CBD. It has been modified to enhance the therapeutic benefits of CBD by increasing peroxisome proliferator-activated receptor-gamma (PPAR γ) and cannabinoid receptor type 2 (CB $_2$) agonist activity, and also by affecting the hypoxia inducible factor (HIF) pathway. These receptors have been shown in the scientific literature to be beneficial in preventing neuroinflammation and demyelination in the central nervous system, and fibrogenesis in the periphery. EHP holds patents on EHP-101 and other new chemical entities in this class of synthetic CBD-derived molecules. EHP plans to initiate first-in-human clinical studies with orally-administered EHP-101 later this year.

About Emerald Health Pharmaceuticals Inc.

Emerald Health Pharmaceuticals is developing product candidates derived from cannabinoids for the treatment of CNS, autoimmune, and other diseases. EHP has two families of new chemical entities, derivatives of synthetic cannabidiol (CBD), including EHP-101, and derivatives of cannabigerol (CBG), including EHP-102. These novel synthetic derivatives have been modified



through rational drug design to affect validated receptors pertinent to targeted diseases. EHP-101 is focused on treating neurodegenerative and autoimmune diseases including multiple sclerosis and scleroderma. The company intends to launch a Phase I clinical study of EHP-101 in 2018. EHP-102 is in preclinical development and is currently focused on treating Huntington's disease and Parkinson's disease. For more information, visit www.emeraldpharma.life or contact: info@emeraldpharma.life.

To the extent statements contained in this news release are not descriptions of historical facts regarding Emerald Health Pharmaceuticals Inc. they should be considered "forward-looking statements," as described in the Private Securities Litigation Reform Act of 1995, that reflect management's current beliefs and expectations. You can identify forward-looking statements by words such as "anticipate," "believe," "could," "estimate," "expect," "forecast," "goal," "hope," "hypothesis," "intend," "may," "plan," "potential," "predict," "project," "should," "strategy," "will," "would," or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes. Forward-looking statements contained in this news release include, but are not limited to, statements regarding: (i) the success and timing of our product development activities and clinical trials; (ii) our ability to develop our product candidates; (iii) our plans to research, discover, evaluate and develop additional potential product, technology and business candidates and opportunities; (iv) the anticipated timing of clinical data availability; and (v) our ability to meet our milestones. Forward-looking statements are subject to known and unknown factors, risks and uncertainties that may cause actual results to differ materially from those expressed or implied by such forward-looking statements. Undue reliance should not be placed on forward-looking statements. We undertake no obligation to update any forward-looking statements. Emerald Health Pharmaceuticals' investigational drug products have not been approved or cleared by the FDA.