

Hochu-ekki-to treatment improves reproductive and immune modulation in the stress-induced rat model of polycystic ovarian syndrome

Short title: Hochu-ekki-to and polycystic ovarian syndrome

Eunkuk Park ¹, Chun Whan Choi ², Soo Jeong Kim ^{3,4}, Yong-In Kim ⁵, Samkee Sin ⁶, Jong-Phil Chu ⁷ and Jun Young Heo ^{3,4,8,*}

¹ Department of Medical Zoology, College of Medicine, Kyung Hee University, Republic of Korea

² Bio-Center, Gyeonggi Institute of Science & Technology Promotion, Suwon 16229, Korea;

³ Department of Biochemistry, ⁴ Department of Medical science, Chungnam National University School of Medicine, Daejeon 301-747, Republic of Korea

⁵ International Biological Material Research Center, Korea Research Institute of Bioscience and Biotechnology, 125 Gwahak-ro, Yuseong-gu, Daejeon 34141, Republic of Korea

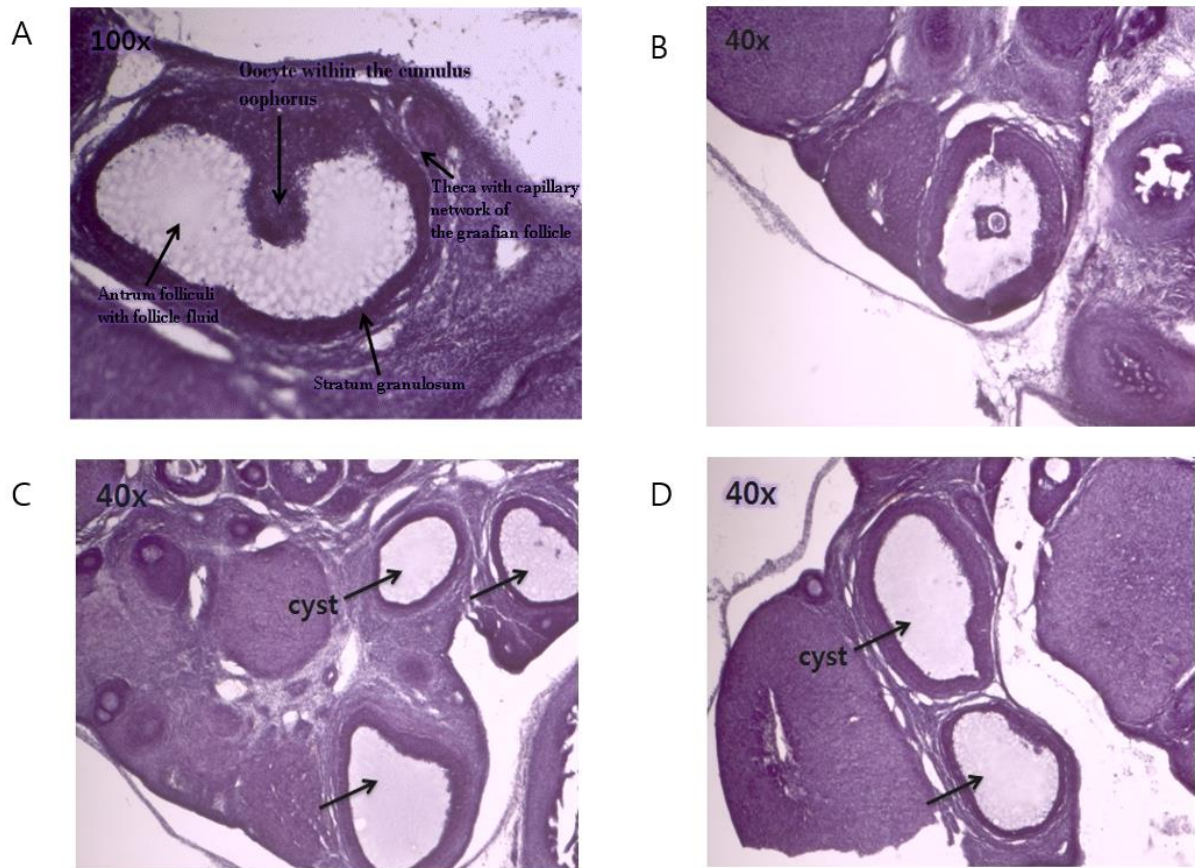
⁶ Institute of Korea Food and drug resource, 30, Seocho-daero 74-gil, Seocho-gu, Seoul, Republic of Korea; 06622

⁷ Department of Medical Zoology, College of Medicine, Kyung Hee Medical Center, Kyung Hee University, Republic of Korea

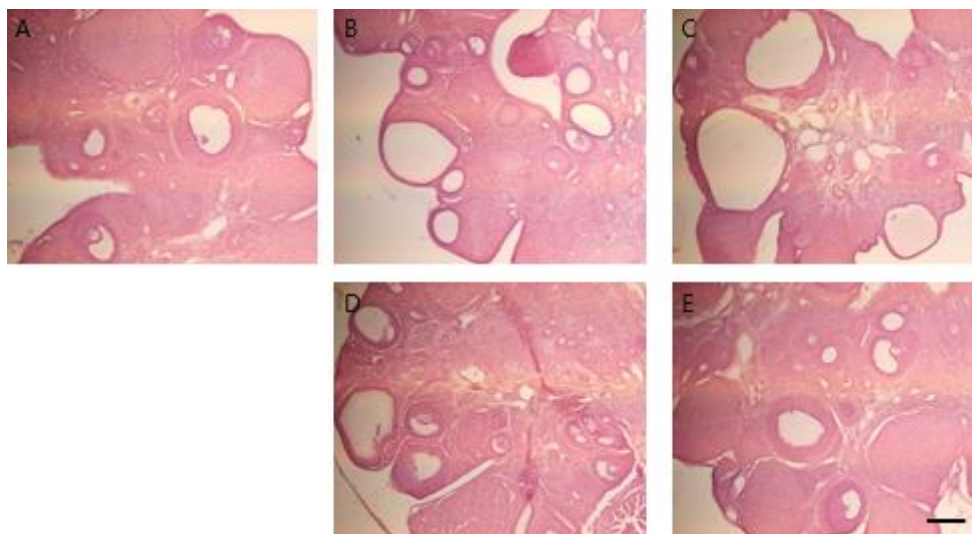
⁸ Brain research Institute Chungnam National University School of Medicine, Daejeon 301-747, Republic of Korea

*To whom correspondence should be addressed.

Supplementary Figures S1, S2 and Figure Legends



S1 Figure. Ovarian morphology was assessed by hematoxylin-eosin staining. (A and B) The morphologies of dominant follicles before ovulation. (C and D) Ovarian morphologies on estrous of rats subjected to ACTH injection and cold stress



S2 Figure. Ovarian morphology was assessed by hematoxylin-eosin staining of ovary sections from rats of the control group (A), ACTH injection group (B), cold-stress group (C), Hochu-ekki-to-treated ACTH injection group (D), and Hochu-ekki-to-treated cold-stress group (E).