



We Should Not Forget Lessons Learned from the Woo Suk Hwang's Case of Research Misconduct and Bioethics Law Violation

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On September 28, 2016, the National Academy of Medicine of Korea (NAMOK, President Namsik Chung) hosted the 7th NAMOK Academic Forum at Yonsei University, Seoul. The theme of the forum was "Review the past 10 years after the Woo Suk Hwang's case." The forum was chaired by Prof. Yoon-Seong Lee (Seoul National University, Seoul), President of the Korean Academy of Medical Sciences.

The invited speaker, Prof. In Young Lee (College of Law, Hongik University, Seoul) reviewed facts of ethical violations by Woo Suk Hwang and summarized legal actions after the dismissal of his professorship by Seoul National University in 2006. There had been debates over the penalties incurred, but the Supreme Court of Korea finally released its verdict in 2014, indicating that Woo Suk Hwang was guilty of misappropriation of research grant funds and violation of the Law on Bioethics and Safety. The Supreme Court also concluded that the dismissal of Woo Suk Hwang from the Seoul National University was justified, considering his research misconduct and embezzlement. Prof. Lee also analyzed cultural and political background of the Hwang's case and suggested several strategies to upgrade research ethics.

Several panelists critically overviewed various aspects of the Hwang's case. Prof. Il-Hoan Oh (The Catholic University of Korea, Seoul) touched upon the conspired populism and political orientation in science and pointed to the 'scientific backwardness and blindness' across top global journals, such as the *Cell*, *Nature*, and *Science*.

The journalist Yanggu Kang (The Pressian) stressed that Woo Suk Hwang is still actively involved in research, and most of his unethical collaborators continue working in the same research laboratories. He reflected on what had changed after the incident of bioethics violations and research misconduct, and pointed to the threats of 'blind science' that undermine philosophy and ethical considerations.

Prof. Hwansuk Kim (Kookmin University, Seoul) pointed out that those involved in scientific research must be held accountable for the procedures and outcomes. He also introduced the

"Responsible Research and Innovation" movement.

Dr. Myunghee Kim (Korea National Institute for Bioethics Policy, Seoul) reflected on ethical issues of ovum donation by artificially hyperovulating women. The donation was initially proposed as a humane and ethical procedure, but numerous violations surfaced in the real life. She deplored ignorance of health problems of ovum donors and violation of related bioethical rules.

Prof. Myung-Hee Chung (Gachon University, Seongnam; Chair of the Investigation Committee in Seoul National University in 2006) raised concerns that the same research misconduct has taken place over the past 10 years in Korea. He highlighted two confounding factors related to research environment in Korea. The first one is the compromised grant funding system. It is highly competitive and complicated due to the governmental strategy of selection and concentration of the grants. As a result, small groups of supported researchers manage surplus funds while numerous researchers face financial obstacles to undertaking research. In addition, the pressure to publish escalates in Korea while the perception of ethical transgressions remains low. He emphasized the role of consistent efforts and actions to educate young researchers, upgrade research ethics, and penalize all violators.

Prof. Ock-Joo Kim (Seoul National University) overviewed the research ethics status in Korea after the Hwang's case. The Korean society realized the importance of ethical research and introduced the institutional review board system for all biomedical research.

Lessons from the Hwang's case should be kept in mind. It is surprising that Woo Suk Hwang is still active in research. Any researcher who commits misconduct and crime must be excluded from the scientific community. Editors of scholarly journals should not accept any article by Woo Suk Hwang. Korean research administrators should realize threats of directing grant flows to handful researchers exploring fancy topics and revise their current strategy of concentration. The interference of politics in research grant allocations must be avoided with empha-



Speakers and participants of the 7th NAMOK Academic Forum, Seoul, Korea.

sis placed on the diversification of financial flows and support of large bottom-up research groups. The system of grant funds and incentives reserved for only ethical researchers is essential for clearing research environment and advancing science in Korea.

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