# Clinical Trials Ultimately Aim to Improve Human Health

A conversation with
Dr. Yung-Jue Bang, CEO of Bang & Ock Consulting
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*It is our common understanding that the success of a global clinical study depends often on selecting the right country, with considerations of medical infrastructure, research experience and accessible patient population. Korea, recently became a role model for boosting clinical industry, has been recognized as hub of healthcare innovation and the leading clinical trial destination in the Asian region.*

*Korean clinical trials demonstrated astounding growth over the past two decades in both quality and quantity. Between 2001 and 2012, Korea has the highest number of clinical trials compared to other Asian countries, ranked among top 10 countries that have conducted clinical trials since 2010, according to ClinicalTrials.gov data.*

*Dr. Yung-Jue Bang, a medical oncologist and Emeritus Professor of Seoul National University where he worked and dedicated his research since 1986, has witnessed the booming development of Korean clinical research industry, especially in the field of anti-cancer treatment.*

*Dr. Bang served in many senior positions including Director of Cancer Research Institute, President of Biomedical Research Institute, Director of Clinical Trials Center of Seoul National University Hospital, and Chairman of the Korean Cancer Association. He also co-authored more than 500 papers in SCI-indexed journals including New England Journal of Medicine and Lancet.*

*We recently sat down with Dr. Bang, right after his presentation at APEC (The Asia-Pacific Economic Cooperation) Workshop on Cancer Prevention and Control, to talk about his perspectives on clinical research and why we should include Korea in global drug development.*

**35 years in medical research, and as Coordinating Investigator in a number of international clinical trials, what significant progress do you think we have made in anti-cancer development?**

**Dr. Bang:** First I'd like to emphasize the importance of advances in cancer genomics. The discovery of driver oncogenes has led to the discovery and development of molecularly targeted agents, which became an integral part of anticancer treatment at present. In addition, genetic studies of cancer have resulted in the discovery of predictive biomarkers, and then development of precision medicine.

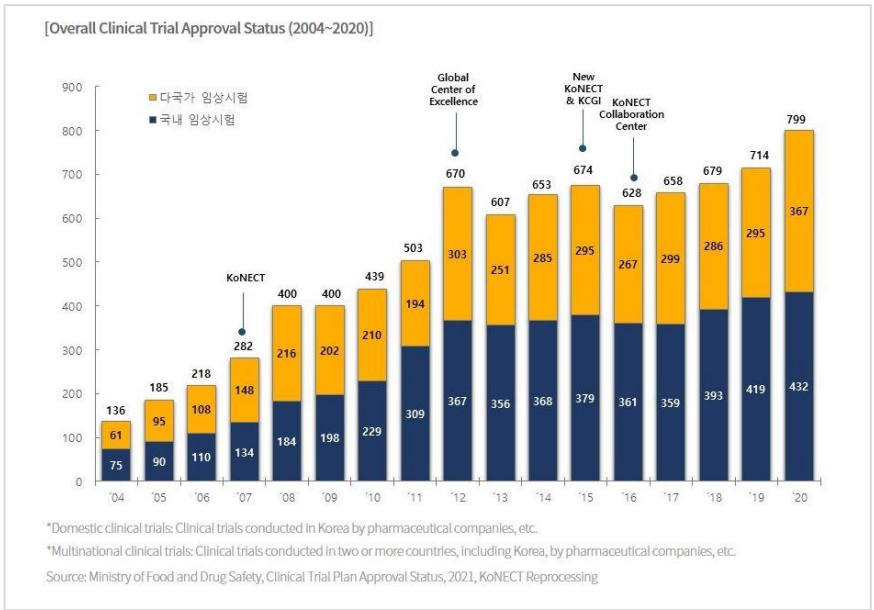
The discovery of immune checkpoint inhibitors has also brought about a revolutionary change in the systemic treatment of cancer. These immune checkpoint inhibitors are currently being used for more than 10 cancer types in daily clinical practice, and so many novel immunotherapies including antibody-drug conjugates and CAR-T therapies are being tested in clinical trials.

**The number of clinical trials in Korea achieved unprecedented growth in the past two decades according to MFDS (Ministry of Food and Drug Safety) information, especially since joining ICH-GCP in 2000. What do you see as the key drivers of this growth?**

**Dr. Bang:** There are many factors set Korea apart in clinical industry, I can illustrate four of those. First, continuous government support was extremely important. A series of important programs were initiated or supported by the government to facilitate Korean clinical trials development, including regional clinical trials center program, KoNECT program, and Global center of excellence program.

Second, highly motivated investigators who dedicated themselves to set up world-class clinical trial centers and improve quality and efficiency. Third, there are many high-volume, high-quality hospitals with the capability of enrolling large number subjects, especially in Seoul. Seoul actually became the world's top city in terms of the number of clinical trials in 2017 ~ 2020.

Lastly, an accessible patient population is also a key factor. Korea is a country with very high population density, it takes only 2 hours by train from Seoul in the north to Busan in the south, sponsors could expect fast patient enrollment and that became a competitive edge.




Overall number of approved clinical trials in Korea 2004-2020
Source: https://www.konect.or.kr/kr/contents/datainfo_data_01_tab02/view.do

**From practical perspectives, what makes Korea a unique destination for clinical development?**

**Dr. Bang:** We can provide world-class medical care for our patients in very sophisticated and big-volume hospitals, which I believe is essential for research. We have well-equipped clinical trial centers, our IRBs and data management centers received full accreditation from international organizations. Our investigators gained an extensive amount of experience across varied therapeutic areas, and the wide-spread use of English in these trials also makes us unique from other countries in Asian region.

As mentioned, our government is industry-friendly and support international clinical project. The Korea clinical trial communities across government, academia and industry have strong willingness to work together on a global level. So we are very much engaged in ensuring high quality and efficiency of clinical trials.

**How does the COVID pandemic influence or transform the way we conduct clinical trials in Korea?**

**Dr. Bang:** I think in the same way as in other countries. Today everybody speaks about the digital application and patient-centric approaches in clinical trials. In 2019, our KoNECT started a new program named 'Smart Clinical Trial Center' for ICT-IoT based innovation of clinical trials. We are moving forward in that direction.

**Looking to the future, what do you think we can do to build a strong collaboration in clinical research between Korea and China, and rest of the world?**

**Dr. Bang:** Collaboration could be the core of life science innovation today, especially during perilous times like COVID-19. Our Korean Cancer Study Group (KCSG) is collaborating with other study groups such as EORTC or TRIO in the US. I think that KCSG can also work together with Chinese groups for Phase II or III trials. I believe there is little ethnic difference between Korean and Chinese, and Beijing and Shanghai is within 2 hours' flight from Seoul, which make our communication easy and effective. For Phase I trials, our centers can work with Chinese centers for faster patient enrollment, especially biomarker-selected patients. I think that this kind of collaboration among Asian countries is very important for the future drug development.

**What would you like to say to the young researchers and scientists in clinical trial industry?**

**Dr. Bang:** Clinical trials are essential for the development of new medicine, and ultimately to improve human health. By joining clinical trials, young investigators can contribute to promoting human welfare and eventually saving lives. It is exciting to be a part of new anti-cancer drug development, and to see how cutting-edge technology and science turn to life-saving medical solutions. To be a good clinical investigator, you have to work together with other investigators, clinical trial personnel, biopharma companies, and regulatory authorities. You need good credit and excellent communication skills.