

喜悦健康診所

NuLiv Wellness Clinic

NuLiv Science's Research and Development Capabilities

NuLiv Science is a growing team of scientists, innovators, and creatives focused on developing and communicating the impact of our patented ingredients for a healthier world.

Chronicle Of Nuliv Research Initiatives

NuLiv Science was founded by Austin H Wang and Michael C Wang in 1997 as a nutraceutical ingredient supplier. The research lab was established in 2000 at the National Defense Medical Center (NDMC), which is the oldest medical teaching and research institute in China and Taiwan. A key figure in its founding was Dr. Han-Ching Lin, who earned his PhD in Pharmaceutical Sciences from the University of North Carolina Eshelman School of Pharmacy under the guidance of Dr. Kuo-Hsiung Lee.

Dr. Lee is a Kenan distinguished professor of Medicinal Chemistry & Director of Natural Product Research Laboratories (NPRL) at the University of North Carolina Eshelman School of Pharmacy. He combined the fields of the most advanced natural products chemistry and synthetic medicinal chemistry as well as cutting-edge life science technologies to design and discover herbal medicine-based natural products and their analogs as clinical trial drug candidates. Dr. Lee collaborated with over 65 laboratories worldwide and published 956 research articles and received more than 121 patents.

Inspired by what he learned from Dr. Lee and his fascination with "qi" herbs, Dr. Lin decided to focus his initial research on the potential of Traditional Chinese Herbs, Astragalus membranaceus and Panax notoginseng. "Qi" herbs have been used extensively over millennia in China and neighboring countries for maintaining, balancing, tonifying, and energizing the body. "Qi," a terminology unfamiliar in the Western world, is one of the key concepts/assumptions in Traditional Chinese Medicine (TCM). In TCM, "qi" is the driving force that maintains life and supports biological activities in the human body. By all analysis, "qi" can metaphorically encompass all metabolic functions that are directly or indirectly involved in the final manifestation of ATP. As such, digestion, absorption, fat oxidation, protein synthesis, nutrient transport, cell regeneration, and many other metabolic functions are all parts of "qi." "Qi" level affects and reflects the levels of many metabolic functions, such as nutrient absorption and gut functions, as they all require an adequate amount of ATP to carry out these functions. For absorption, many nutrients

require ATP to activate their transporters to facilitate their absorption through gut epithelial cells. These epithelial cells are some of the hardest working cells in the body and require constant renewal and cell turnover to replace them. This is accomplished by activating the protein synthesis pathway mTOR pathway which again requires an adequate amount of ATP.

By 2009, the center had completed three dozen in-vitro studies on nutrient absorption in Caco-2 cells, ATP uptake in liver cells, adiponectin and AMPK expression in muscle and fat cells on several fractions extracted from Astragalus membranaceus and Panax notoginseng. Professor WL Chang, who received his PhD in Pharmacy from National Taiwan University, Professor TC Chang, who received his PhD in Biochemistry from University of Illinois, and Dr. Thomas Yang, who received his PhD in Molecular Biology from University of Texas Southwestern Medical Center, made series of studies and reviewed thousands of published literature to formulate these fractions into several nutraceuticals we now known as AstraGin[®], Astrion[®], InnoSlim[®], and Senactiv[®] and started marketing them in 2010. Today, these nutraceuticals are widely sold around the world.

A sports nutrition lab was founded in 2004 at the University of Taipei to focus on the research of ergogenic nutraceuticals. The lab has been led by Professor Chia-Hua Kuo, who is a distinguished professor at the Institute of Sports Sciences at the University of Taipei. Dr. Kuo received his PhD in interdisciplinary: Kinesiology, Molecular Biology, and Biochemistry, from the University of Texas at Austin under the guidance of Professor John Ivy, with eight human trials and three in-vivo studies completed on Senactiv[®] by 2021.

A human trial center was established in 2014 to conduct human trials at the Chung Shan Medical University and its affiliated hospital. So far, several human trials on AstraGin[®] and InnoSlim[®] have been completed and published in peer-reviewed journals.

Many of our ingredients are proprietary in nature, either due to their unique strains, processing technologies, and/or clinical studies.

Our Facilities & Capabilities

In today's fast-paced world, where sedentary lifestyles and poor dietary choices have become the norm, joint health issues are on the rise. Joint pain and stiffness are common complaints among people of all ages, making it essential to take proactive measures to maintain healthy joints. This is where joint health supplements come in.

Supplements offer a convenient and effective way to support joint health by providing essential nutrients that may be lacking in our diets. These include vitamins, minerals, and other compounds like collagen II, which is the primary structural protein found in our joints.

BIOACTIVE BOTANICAL RESEARCH LAB



This lab, located within the NDMC in Taiwan, carries out in-vitro and in-vivo studies on a wide range of cell types to identify the mechanism of action behind the specific bioactive compounds found in plants. Studies are conducted at a hundred-fold dose range using various laboratory techniques to determine the mRNA, transport protein, enzyme kinetics, and nutrient expression of these compounds.

SPORTS SCIENCE LAB



This lab is dedicated to the study and discovery of the mechanism of action behind specific plant compounds and their effect on all aspects of exercise physiology; including energy level, fatigue, muscle soreness, recovery, endurance, and senescent muscle tissue with both aerobic and anaerobic exercise.

NULIV WELLNESS CLINIC



The NuLiv Wellness Clinic is one of the most advanced wellness and anti-aging clinics in East Asia. The NuLiv Wellness Clinic is an integration of conventional medicine, functional medicine, quantum medicine, and Traditional Chinese Medicine. This clinic is grounded on the latest clinical, nutritional sciences, and TCM systemic approaches with an emphasis on lifestyle and regenerative solutions.

The wellness clinic is a 12,000+ square foot facility located in the heart of Taipei, staffed by physicians and therapists trained in both TCM and Western medicine. It has three diagnostic rooms equipped with the latest medical technology including Quantum Physiological Dynamics developed by Harvard's ReyLab. And lastly, it includes a state-of-the-art physio-kinetic facility for exercise and rehabilitation.

QUALITY LABS

When it comes to quality testing, there are a variety of testing facilities and labs in use to maintain the quality and purity standards of our ingredients. Below are a few of the notable facilities, tests, and certifications.

- **NuLiv Science Lab Analysis** – Marker compounds, identification, loss on drying, total ash, particle size, solubility, bulk density, pH, and other tests by using HPLC, TLC, and UV instruments.
- **Third-Party Lab Analysis** – Pesticides, herbicides, preservatives, heavy metals, allergens, GMO, toxins, microbial counts.
- **Certificate of Analysis** – NuLiv Science COA accompanies every shipment. NuLiv Science guarantees compliance with the listed specifications.
- **Authentication of Species** – Verified by pharmacognosy experts at Shanghai TCM University, China Naval Medical University, the Institute of Microbiology, and the Chinese Academy of Sciences.
- **Double Quality Control** – Statistically selected samples are confirmed by leading third-party laboratories.
- **CMC & MOA** – When required, NuLiv Science develops peer-acceptable Chemistry Manufacturing Controls & Mechanisms of Action.

HUMAN TRIAL CENTERS

Our human trial centers are located at several medical universities and their affiliated hospitals. These facilities conduct human trials on many aspects of health and are not limited to NuLiv Science ingredients.

Global Partnerships and Collaborations

The multifaceted approach to ensuring the quality and efficacy of ingredients through comprehensive lab testing, human trials, and adherence to stringent quality controls displays our commitment to excellence in the ingredient space. By leveraging state-of-the-art facilities, collaborating with academic and research institutions, and following a rigorous quality assurance protocol, we not only meet but often exceed industry standards. This ensures that our clients and end-users receive products that are safe, effective, and of the highest quality.

We will continue to push the boundaries of science and technology to bring the best plant-based ingredients backed by evidence-based research. For more information on NuLiv Science or our R&D Facilities, please visit nulivscience.com and reach out to our team.