

## **An updated corporate profile of The Halal Science Center, Chulalongkorn University**

### **The Halal Science Center, Chulalongkorn University**

“The Halal Science Center, Chulalongkorn University” (HSC) was founded according to the cabinet resolution on 13th August 2003 the idea of the HSC started in July 1994, after the Muslim communities in Bangkok faced the problem of Haram substances contaminated in products on sale in communities. Thus, Dr. Winai Dahlan, lecturer in the Faculty of Allied Health Science, Chulalongkorn University, proposed the idea of utilizing scientific laboratory to examine Haram substances in food products and request funding for the establishment of Halal Food Examining Laboratory in the early of 1995. Consequently, the society started to aware of Scientific Halal Safety, and later of consumption of sign in Halal products of Thailand. Finally, the cabinet resolution approved of the HSC project and granted the funding of year 2004-2006 to support Chulalongkorn University in running this project.

The HSC in 2022 consists of more than 50 staff, 7 of them hold doctoral degrees in science, and HSC possesses more than 200 advanced scientific tools. The activities of the HSC revolve around 5 workstations: (1) Halal Forensic Laboratory (HAFOLAB), Bangkok Office, founded in 2004; (2) Business Incubator of Halal Products (BIHAP), Bangkok Office, founded in 2006; (3) Halal Food and Nutrition Alert (HAFANA), Pattani Office, founded in 2009; (4) Halal Big Data House (HABIDAH), Chiang Mai Office, founded in 2012; (5) Halal Innovation Community Learning Center (HICOLEC), Nakorn Nayok Office, founded in 2021. The land of this new office was granted by Muhamadiyah Foundation at Chumpol sub-district, Ongkarak district, Nakorn Nayok province. The HSC, moreover, collaborates with HALKEW Company Limited, a startup under JAMJUREE INNOVATION PRODUCTS Company Limited and Halal Science Development Foundation in launching THA Shop to operate online business learning center. Currently, there are more than 100 SMEs joining the project.

The HSC-CU has been working to develop Halal science, technology, and innovation continuously; and to expand its network until Halal science was blended in various fields. As a result, the HSC received many international awards. The HSC aims to work for physical and spiritual safety of Muslim consumers domestically and globally. It is acknowledged as the first Halal Science Institute in the world.

### **Vision and Mission of the Halal Science Center**

**Vision:** “The Halal Science Center, Chulalongkorn University is the organization that aims to drive Halal Thailand to become leader in Halal quality at international level.”

**Resolution:** Aiming to develop “Halal science under the identity of Thailand.”

**Mission:** Pioneer knowledge of Halal science and technology, transfer academic knowledge and services to public, and preserve religion, art, and culture through integration to benefit sustainable development of Thailand’s and international society.

## **Tasks of the Halal Science Center**

- Set up Halal Forensic Laboratory that consists of analytical and advanced scientific instruments with high quality
- Provide services relating to examining contamination of forbidden substances (haram and najis) in Halal food materials and products.
- Develop innovation and new analytical methods relating to Halal science.
- Create list of ingredients, chemical substances, and products for the benefit of industrial sector and consumers.
- Provide counsel and set up the HAL-Q system to industrial sector that desires to produce Halal food and cosmetics products
- Support Halal scientific knowledge to Islamic organizations that work on Halal accreditation.
- Organize training on Halal science for both educational and industrial sectors
- The Halal Science Center, Chulalongkorn University, provides science and technology services to society. Its services are of three types: Halal forensic science laboratories, research and innovation, and services to external sectors.

## **Halal Forensic Science Laboratory**

Halal Forensic Science Laboratories at the Halal Science Center, Chulalongkorn University, work on examining the quality of Halal products and ensure that each product is qualified according to Islamic principles and Halal standards. Today, the laboratories are guaranteed by quality standards such as ISO/IEC17025:2017, ISO9001:2015 .It went through scientific laboratory capacity assessment in Halal accreditation according to ISO/IEC17025:2017, in accordance with the UAE.S 2055-2:2016 standard and regulation relating to “those who assists in examination” of the Central Islamic Council of Thailand (CICOT). The laboratories were also approved by the laboratory safety assessment via peer evaluation by National Research Council of Thailand. The Halal Forensic Science Laboratory ESPReL ID: 2-0010-0603-9 and Wan Muhammad Noor Matha Halal Molecular Biology Laboratory ESPReL ID: 2-0010-0610-1

The Halal Forensic Science Laboratories provide examination services in 4 parameters according to Islamic principles and 1 parameter for consumer protection as follows:

1.1 Quantitative Analysis of Gelatin (Hydroxyproline content: AOAC 990.26) by Spectrophotometer and LC-MS/MS LC-QTRAP

1.2 Analysis of Fatty Acids Composition (GC-MS, GC-FID, GLC: Lepage G and Roy, 1984, 1986) GC-FID and GC-MS

1.3 Quantitative analysis of Ethyl alcohol / Ethanol (GLC: AOAC973.23)

1.4 Detection of Porcine DNA Contamination (Real-Time PCR)

1.5 Analysis of Polar compounds

This test analyses the polar compounds in food product for example cooking oil, fried cooking oil and other food products containing oils.

The laboratory has been working continually to bring the knowledge of Halal science to the society and to protect consumers and assure them of the products they consume. Samples are collected from the markets to verify and traceable the contamination in the products according to religious principles. From the past to the present, more than 182,032 samples have been tested.