

# 國立中興大學醫學院智慧長照醫療研究中心設置辦法

## Regulations for the Establishment of the Intelligent Long Term Medical Care Research Center, the College of Medicine of NCHU

111 年 8 月 16 日醫學院 111 學年度第 1 學期第 1 次院務會議通過

On August 16, 2022, the College of Medicine of NCHU (hereinafter referred to as the College) passed at the first academic meeting of the first semester of the 2022 academic year.

111 年 11 月 17 日 111 學年度第 1 學期研究發展會議訂定

November 17, 2022, the Research and Development Meeting of the first semester of the 2022 academic year was established.

第一條 國立中興大學醫學院（以下簡稱本院）為因應智慧醫療的時代潮流，提升智慧醫療於長照領域的應用，強化本院智慧醫療及長期照護相關研究，基於培育人才及技術發展之需要，依本校相關法規，設立「國立中興大學醫學院智慧長照醫療研究中心」（以下簡稱本中心）。

Article 1 In order to respond to the trend of the era of smart healthcare, enhance the application of smart healthcare in the field of long-term care, and strengthen research related to smart healthcare and long-term care in our hospital, based on the need for talent cultivation and technology development, the College of Medicine of NCHU (hereinafter referred to as the College) established Intelligent Long Term Medical Care Research Center in accordance with the relevant regulations of the university.

第二條 本中心負責整合推動智慧醫療及長期照護相關教學、研發、推廣服務及人才培育。本中心的設置任務主要有以下三大項：

一、長照居家智慧復健設施與器材的研發：內容包括

(一) 虛擬實境裝置的運動課程設計

(二) 結合慣性測量單元陀螺儀的穿戴裝置開發

(三) 利用影像以及慣性測量單元陀螺儀開發步態偵測與矯正設備

(四) 床上復健運動課程的動作偵測、規劃與精進

(五) 看護支援機器人及聊天機器人的設計與開發

## 二、長照智慧輔具的開發與應用：內容包括

(一)足底壓力偵測與智慧鞋墊的開發

(二)利用 3D 攝影進行軟式背架及夜間穿戴型背架的設計與開發

(三)利用 3D 列印技術開發上肢功能性輔具以及下肢行動輔具的製作

## 三、智慧通訊設備的研發在長照領域的應用：內容包括

(一)利用物聯網搭配遠端監測動作或生命徵象及應用

(二)遠距診療系統的開發與應用

Article 2 The center is responsible for integrating and promoting smart healthcare and long-term care-related teaching, research and development, outreach services, and talent cultivation. The main tasks of the center's establishment are as follows:

- I. Development of facilities and instruments of long-term care smart rehabilitation, including:
  - i. The design of exercise programs using virtual reality.
  - ii. The development of IMU-based wearing devices.
  - iii. The development of gait detection and correction devices based on image and IMU.
  - iv. Bedside exercise programs integrating motion detection, planning, and improving.
  - v. The design of robots used in caregiving and chatting.
- II. Development and application of long-term care intelligent orthosis, including:
  - i. The development of detection of foot pressure and smart insole.
  - ii. The design of soft back brace and night-wearing orthosis using 3D camera photography.
  - iii. The manufacturing of functional orthosis of upper limbs and ambulation orthosis of lower limbs utilizing 3D printing.

III. The application of smart communication in long-term care, including:

- i. Remote monitoring of vital signs or movement using IoT technologies.
- ii. The development and application of remote medical care system.

第三條 本中心置主任一人，綜理中心有關業務。由院長提請校長遴聘相關領域專任助理教授以上教學或研究人員聘兼之，任期同院長，連任次數以一次為限。

Article 3 The center shall have one director who is responsible for overseeing the center's related operations. The director shall be appointed by the university president based on a recommendation from the dean, and the position is to be held by a full-time assistant professor or higher in the relevant field, with teaching or research duties. The director's term shall align with that of the dean, and reappointment is limited to one additional term.

第四條 本中心設諮詢委員會，置委員三至五名，由院長擔任主任委員及召集人，餘由院長聘請國內外產官學重要人士兼任之。負責協助訂定本中心之研究發展策略，委員任期同主任。諮詢委員會每一年由召集人召開諮詢委員會議兩次。

Article 4 The Center shall establish an Advisory Committee comprising three to five members. The Dean shall serve as the Chairperson and Convener, while the remaining members shall be appointed by the Dean from prominent figures in domestic and international industry, government, and academia. The Committee is responsible for assisting in formulating the research and development strategies of the Center. The term of office for committee members shall coincide with that of the Chairperson. The Advisory Committee shall convene twice a year, with meetings called by the Convener.

第五條 本中心設執行委員會，置委員七至九名，副院長為主任委員及召集人，餘由院長聘請相關領域教學或研究人員兼任之。每學期召開一次之業務會議，負責相關業務之推動，委員任期同主任。本中心所需經費以自行籌措、自給自足為原則，並依本校相關規定辦理經費報支及繳交費用。

Article 5 The Center shall establish an Executive Committee consisting of seven to nine members. The Vice Dean shall serve as the Chairperson and Convener, while

the remaining members shall be appointed by the Dean from teaching or research personnel in relevant fields. The Committee shall hold a business meeting once each semester to oversee the implementation of related tasks. The term of office for committee members shall coincide with that of the Chairperson. The Center shall operate on a self-sustaining basis, raising its own funds as a primary principle. All financial reporting and payments shall be handled in accordance with the relevant regulations of the University.

第六條 本辦法經院務會議及研究發展會議通過後實施，修正時亦同。

Article 6 These regulations shall take effect upon approval by the Faculty Meeting and the Research and Development Committee. The same procedure shall apply to any amendments.