

Appendix 1 – Justification of establishing Paediatric Inherited Metabolic Medicine as a new Subspecialty in Hong Kong

Pediatric inherited metabolic medicine (PIMM) has been practised in Hong Kong for decades. Patients with inherited metabolic disorders (IMD) are used to be under the care of a few pediatricians with special interest in PIMM. The Hong Kong Society of Inborn Errors of Metabolism (HKSIEM) is established since 2004 to promote the PIMM development in Hong Kong. The Hong Kong Children’s Hospital is established since 2018 and serves as a hub of public PIMM and extended newborn screening service. Regular clinical meetings and educational activities are organized to engage the local paediatric community and to build network with other local organizations, patient groups, and overseas expertise. Colleagues actively participate in research activities with publication output both locally and internationally. Currently there are at least eight senior pediatricians, with peer-recognized experience in PIMM, actively working in the field. There are also a number of post-fellow trainees who are building their career in PIMM. We believe a solid foundation has been built to support a formal systemized training in PIMM in Hong Kong.

With the increase in demand for PIMM service in terms of patient number and care complexity, there is an urgency to establish an accredited PIMM service and training program to sustainably meet the service need. The justifications of establishing PIMM as a new subspecialty in Hong Kong is tabled according to the Hong Kong Academy of Medicine Criteria (table 1). A PIMM training curriculum proposal, which is unanimously agreed by all fellows interested in the subspecialty, is ready for accreditation.

Table 1: Justification for Paediatric Inherited Metabolic Medicine to be recognized as a subspecialty according to the Hong Kong Academy of Medicine Criteria

Criteria laid down by the Hong Kong Academy of Medicine for the recognition of a Subspecialty	Justification for Paediatric Inherited Metabolic Medicine to be recognized as a subspecialty in Hong Kong
I. The subspecialty is needed in Hong Kong	The estimated number of paediatric patients with inherited metabolic disorders (IMD) is 1,250 per million in Hong Kong, based on a stocktaking of 5 local paediatric units with metabolic/neuro-metabolic clinics. With the paediatric population of nearly 1 million, Hong Kong is expected to have at least 1,250 paediatric IMD patients. The figure underestimates the current population prevalence of paediatric IMD. The commencement of territory-wide newborn IMD screening since 2020 and advancement in IMD diagnostics and therapeutics also lead to a rising number of paediatric IMD patients with improved life expectancy and need of ongoing care in Hong Kong. The rarity, variability, and complexity of an individual IMD demands the care provided by dedicated IMD specialists with relevant training and expertise. Establishment of PIMM subspecialty is needed to address the cumulative public health demand in Hong Kong.

Table 1 (cont.):

Criteria laid down by the Hong Kong Academy of Medicine for the recognition of a Subspecialty	Justification for Paediatric Inherited Metabolic Medicine to be recognized as a subspecialty in Hong Kong
II. The subspecialty is new and different from existing subspecialties	Paediatric inherited metabolic medicine deals with disorders that affect the body's normal biochemical reactions. Unlike other existing subspecialties, there is no established clinical training pathway for paediatric metabolic medicine yet in Hong Kong.
III. The knowledge, skills and practice required by that subspecialty are identifiably distinct and are deemed appropriate and compatible with the practice of pediatrics	A Metabolic Paediatrician is a doctor who cares for children and families affected by IMD, geared with detailed knowledge of human biochemistry and the corresponding IMD, expert skills in early recognition of the full range of IMD, and dedication to provide up-to-date high quality diagnostic, therapeutic, and multidisciplinary IMD care service.
IV. The subspecialty exists in other countries	Paediatric Inherited Metabolic Medicine is a well-recognized subspecialty in many countries including United Kingdom and other European countries e.g. Germany.
V. The subspecialty is recognized at the institutional level; with the appointment of academic staff for that subspecialty at the Associate Professor level in a university in Hong Kong or the appointment of a Consultant for that subspecialty in one of the Hospital Authority Hospitals or the Department of Health	In the Hospital Authority, Consultant in Paediatric Inherited Metabolic Medicine is appointed to lead the subspecialty service provision as well as training and development in the Hong Kong Children's Hospital. Former and current Consultants include: - Dr Joannie HUI (2018-2020) - Dr Cheuk-Wing FUNG (2020-current)
VI. The subspecialty has the administrative support of one or more constituent Colleges of the Academy.	The Hong Kong College of Paediatricians supports subspecialties development through subspecialty boards.