

# Secondary use of dried blood spots from newborn screening

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*To the Editor*—The opt-in, territory-wide Newborn Screening Programme for Inborn Errors of Metabolism relies on collection of a newborn's dried blood spot (DBS) at birth. The residual DBS (rDBS) samples contain genetic material and may be stored for secondary research purposes. Nonetheless according to the findings by Ngan et al,<sup>1</sup> not all healthcare professionals are confident in explaining to hesitant parents the secondary benefits of the Programme. Below is an example of how rDBS may be utilised for translational research through analysis of genes in samples.

Acute lymphoblastic leukaemia is a common childhood malignancy of multifactorial pathogenesis and may present before 12 months of age<sup>2</sup>; such an early onset has inspired research into any prenatal gene abnormalities in diagnosed individuals. Related chromosomal aberrations such as *BCR-ABL1* translocation and high hyperdiploidy have been detected in rDBS samples of individuals subsequently diagnosed with acute lymphoblastic leukaemia,<sup>3</sup> suggesting in-utero involvement. Closer monitoring of genetically high-risk children may facilitate timely detection of any cancer, although such cost-effectiveness is yet to be assessed.

Clinical application of rDBS research is still in its infancy but has potential in population-wide disease tracking and epidemiological studies. Equipping healthcare professionals with updates on relevant studies may facilitate communication with prospective parents. It is hoped that more parents will opt in and contribute precious rDBS samples to the scientific community.

## Author contributions

Concept or design: CWM Leung.

Acquisition of data: CWM Leung.

Analysis or interpretation of data: CWM Leung.

Drafting of the manuscript: CWM Leung, NS Cheng.

Critical revision of the manuscript for important intellectual

content: NS Cheng, TF Leung.

All authors had full access to the data, contributed to the study, approved the final version for publication, and take responsibility for its accuracy and integrity.

## Conflicts of interest

All authors have disclosed no conflicts of interest.

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