Examination of locations and indications of all channel points designated in the earliest classical source: the *Zhen jiu jia yi jing*

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This thesis is presented in the fulfilment of the degree of Doctor of Philosophy

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Certificate of Authorship

I, Young Bok (Victoria) Choi declare that this thesis, is submitted in fulfilment of the

requirements for the award of Doctor of Philosophy, in the Science faculty, School of Life

Sciences at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I

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This document has not been submitted for qualifications at any other academic institution.

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Abstract

Introduction: The existence of acupoints or channels have yet to be validated in research studies therefore clinical validity should be evidenced by the original extant source text. Huangfu Mi's *Zhen jiu jia yi jing (ZJJYJ)* is regarded as the earliest text (282CE) on differential diagnosis and clinical acumoxa therapy in Chinese Medicine (CM), where acupoints and clinical indications in the form of 'Ruling Point' (RP) are systematically organised.

Aims: To determine clinical characteristics of 361 acupoints on the 14 channels by examining the earliest extant source *ZJJYJ* on acupuncture for their: RP frequency distribution by acupoint sequence position, body region, clinical profile and diagnostic book source; and modern uses reported in research literature.

Method: *Studies I–III*: Categorise RP indications for all acupoints systematically, based on *ZJJYJ's* six diagnostic books. The Song Dynasty Chinese edition (1077) and English translation (Yang and Chace, 1994) were used. Identified acupoint RP indications were extracted, checked, coded and frequencies distributions derived using excel and python were examined.

Study IV: Research databases were surveyed for randomised controlled trials of 361 acupoints, human studies, 1995–2016 year range in English language. The clinical foci identified in the studies were compared to those from ZJJYJ.

Results: *Studies I–III*: Frequency distribution of RP indications across 14 channels showed there was a higher concentration at extremity body regions (approx. 65.5%). Overall, clinical focus' of channels were unique however, there were similarities between channels and RP within the same body region. RP indications on the limb extremity were for systemic or proximal conditions, while RP sequenced proximally included more local symptoms.

Study IV: 180 articles met the inclusion criteria for review, LI4 (n=51) and ST36 (n=15); PC6 (n=17); TH5 (n=16); LI11 (n=10); LR3 (n=9) and HT7 (n=8) were most widely studied acupoints. There was limited relationship between classical and modern uses of the same acupoints. One third of the articles were fMRI studies investigating the mechanism of acupuncture on the human brain.

Conclusion: Relationships between RP indications and acupoint channel sequence position, and RP frequency occurrence between channels within the same anatomical region were identified. The research literature and RP cluster patterns from *ZJJYJ* highlighted potential clinical neuromodulatory effects. Superficially *ZJJYJ* appeared to have minimal relevance on informing

modern clinical practices, with research consisting of more experimental studies. However, *ZJJYJ* does provide guidance for yet uninvestigated acupoint regions that may have significant neuromodulatory properties and/or clinical efficacy.