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**Allometric growth ratios in the mouse are independent of *Igf2* allelic dosage**

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Murine Insulin-like growth factor II (*Igf2*) is a maternally imprinted embryonic growth factor. Null (*Igf2*<sup>+m/-p</sup>), or biallelic (*H19*<sup>+m/+p</sup>) expression of *Igf2* results in mice born 40% smaller or 30% larger than their wild type (Wt) littermates respectively. *Igf2* supply has been shown to modify cell survival and proliferation at around E9.5.

Despite this significant change in size, allometric growth ratios between the head and body remain unaltered in all genotypes between E16.5 and postnatal day 7, with a regression gradient of 0.75x. Moreover, this gradient also describes head and body data obtained from human embryos. As *Igf2* is expressed in the extra-embryonic mesoderm in the mouse at E7.0, the precursor of the allantois which develops between E7.25-8.0, we investigated whether the global size modifications resulted from delayed chorio-allantoic fusion and subsequent maternal nutritional support. However, no differences between Wt and *Igf2* null conspectuses were detected. Maintenance of allometric ratios may therefore be due to IGF-II endocrine effects or the near ubiquitous expression of *Igf2* during later gestation.

In parallel, data from recent experiments designed to investigate potential interactions between IGF-II and p53, show that the *Igf2*<sup>-/-</sup>,*p53*<sup>-/-</sup> genotype appears embryonic lethal in 129S2 mice. This lethal phenotype, and whether p53 and IGF-II mediated signaling modify cellular responses to DNA damage during this period will be investigated.