Propositions belonging to the thesis:

**Characterization of the Functional Roles of Six2 during Kidney and Stomach Development**

by

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1. The cell-autonomous function of Six2 is necessary and sufficient to maintain the renal progenitor population in an undifferentiated state by opposing inductive signals emanating from the ureteric bud during kidney development.

   *This Thesis*

2. As a step towards renal therapy, the isolation of the Six2-expressing nephron progenitors should be a powerful tool to help us characterize their cellular and molecular features.

   *This Thesis*

3. The view of Hatini et al. that proposes early segregation and maintenance of two separate populations of stromal and nephrogenic progenitors in the developing kidney is further supported by our data; however, lineage tracing of the stromal progenitors and further characterization of descendents from the Six2-positive population would conclusively demonstrate this hypothesis.

   *Hatini et al. (1996) Genes Dev 10:1467-1478*

4. During gastrointestinal development, Six2 activity is required to establish a BMP4-free territory in the posterior stomach that permits normal formation of the pyloric sphincter.

   *This Thesis*

5. Given the data of Guarino et al. and Brodbeck et al., screening pyloric muscle biopsy samples from IHPS patients for changes in the expression levels of SIX2 should be adequate to evaluate whether SIX2 plays a role in the etiology of infantile hypertrophic pyloric stenosis (IHPS).


   *This Thesis*
6. The cause of Morgellons disease should be comprehensively researched so that the controversy of whether it is a valid pathological condition or a psychological disorder can be put to rest.

   Accordinol et al. (2008) Dermatologic Therapy 21:8-12

7. Even though the development of induced pluripotent stem (iPS) cells from adult human somatic cells makes great strides in advancing the possibility of a renewable and customized source of stem cells for patient therapy, many hurdles still need to be surmounted for these iPS cells to become a realistic therapeutic option.


8. Although Nguyen et al. provide strong evidence for the “one neuron-one receptor” hypothesis, they fail to address how only one receptor from a family of 1300 genes is selected by each olfactory sensory neuron.

   Nguyen et al. (2007) Cell 131:1009-1017

9. The observation of cells inside other cells in human primary breast tumors is not solid proof that these structures are a result of entosis such as that noted in cultures of transformed epithelial cell lines.

   Overholtzer et al. (2007) Cell 131:966-979

10. “It is not birth, marriage, or death, but gastrulation which is truly the most important time in your life.”

    Lewis Wolpert

11. "The South--where roots, place, family, and tradition are the essence of identity."

    Carl N. Degler