

Growth comparison via linear distance analysis of craniosynostotic rabbits treated with anti-Tgf- β 2 antibody



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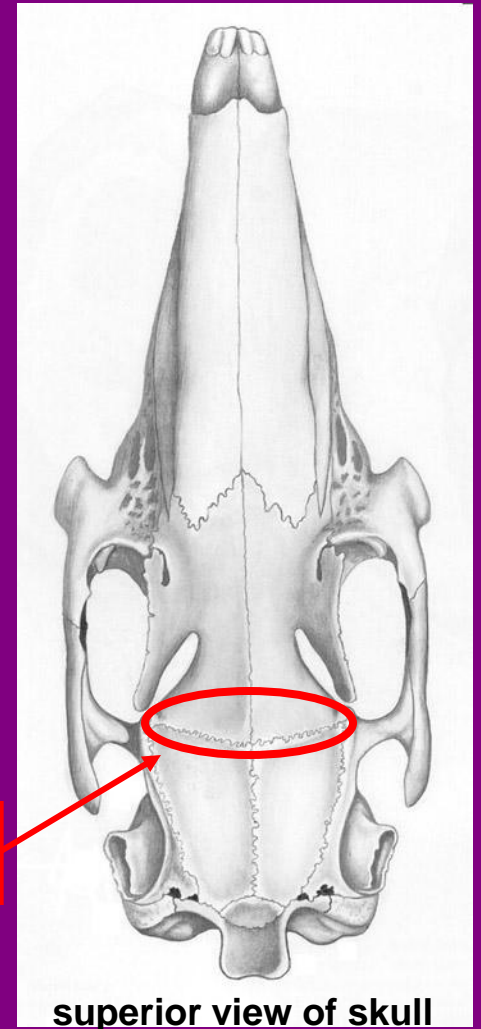
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Introduction

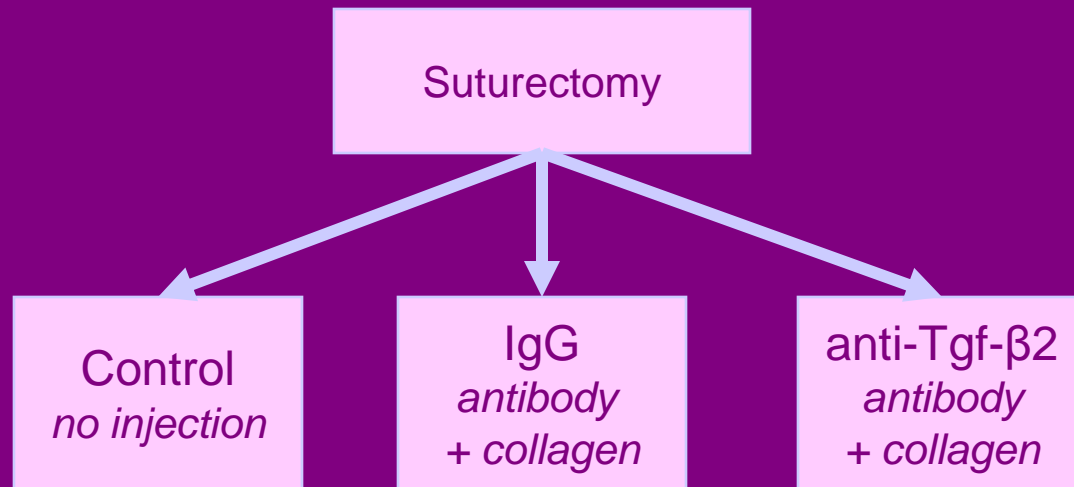
- Rabbit colony at University of Pittsburgh
- TGF- β 2 – craniosynostosis link
- Congenital bilateral coronal suture synostosis

Oryctolagus cuniculus

coronal suture



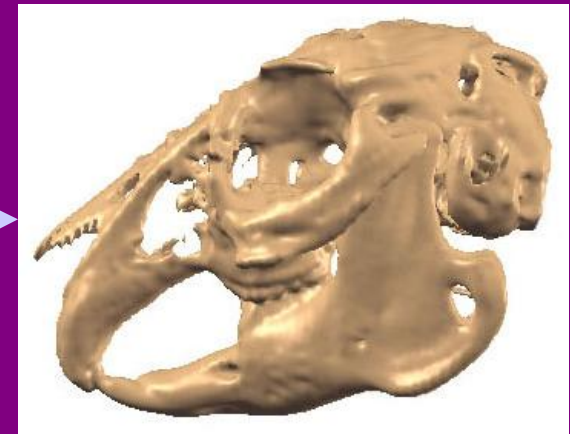
Experimental Design



Peri-op scan

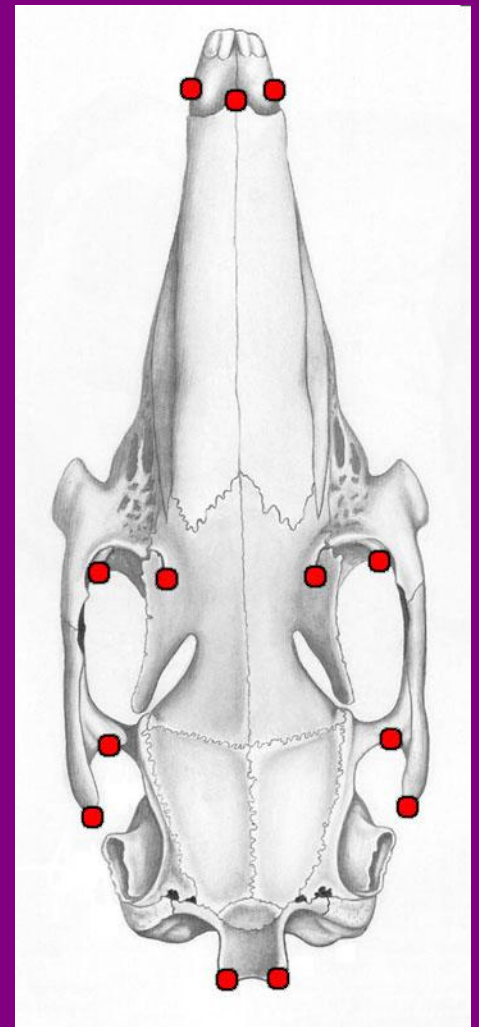
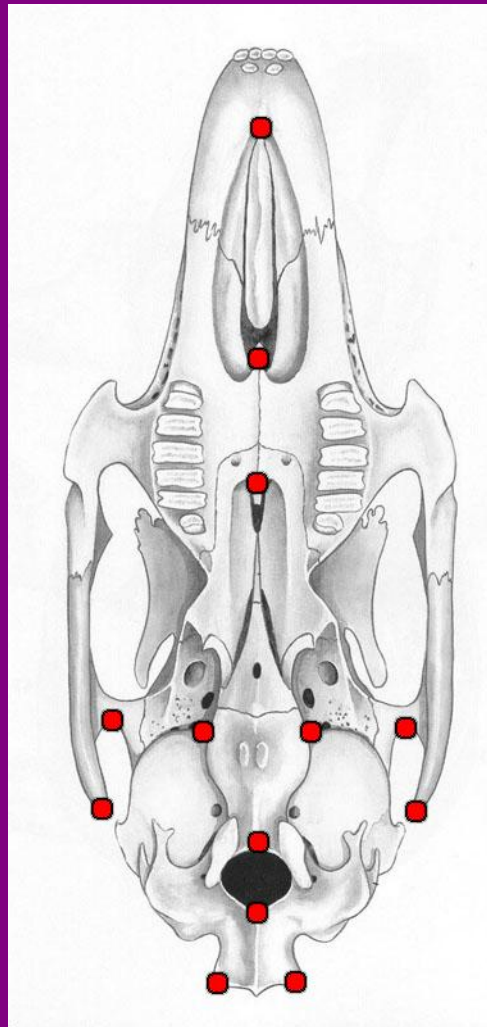
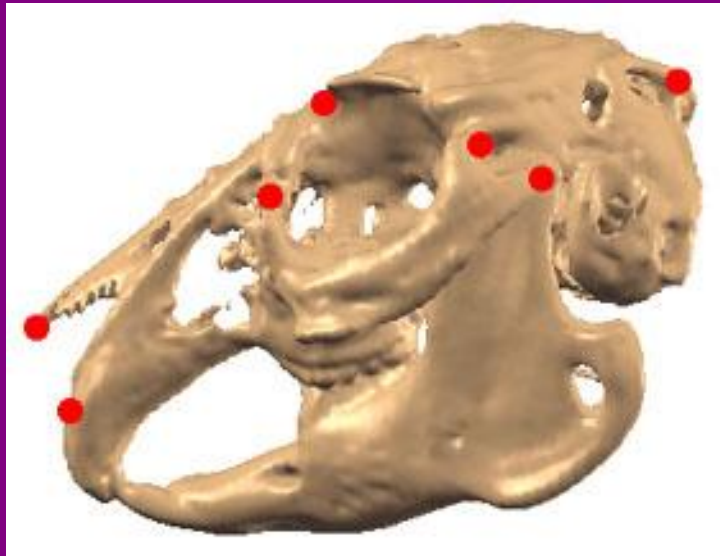


Post-op scan



Mature scan

3-D Imaging & Landmarking



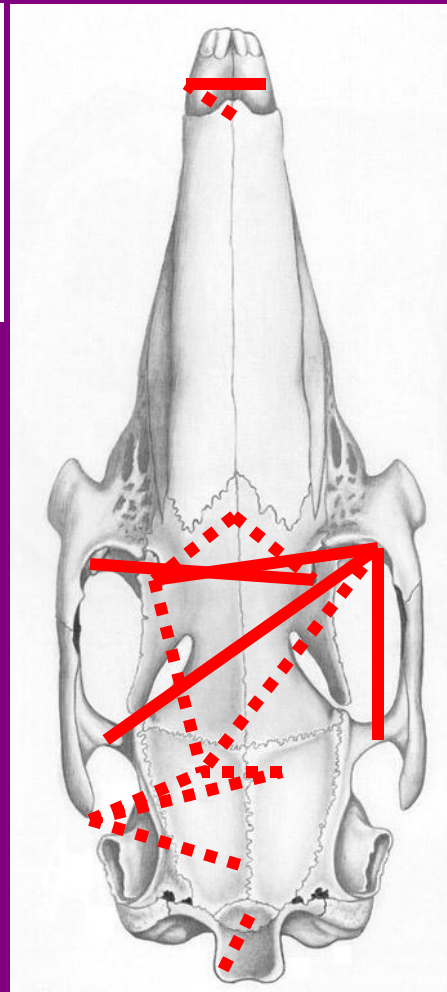
Intergroup Form Comparisons

anti-Tgf- β 2 > control

Post-op scan
age ~25 days



lateral view

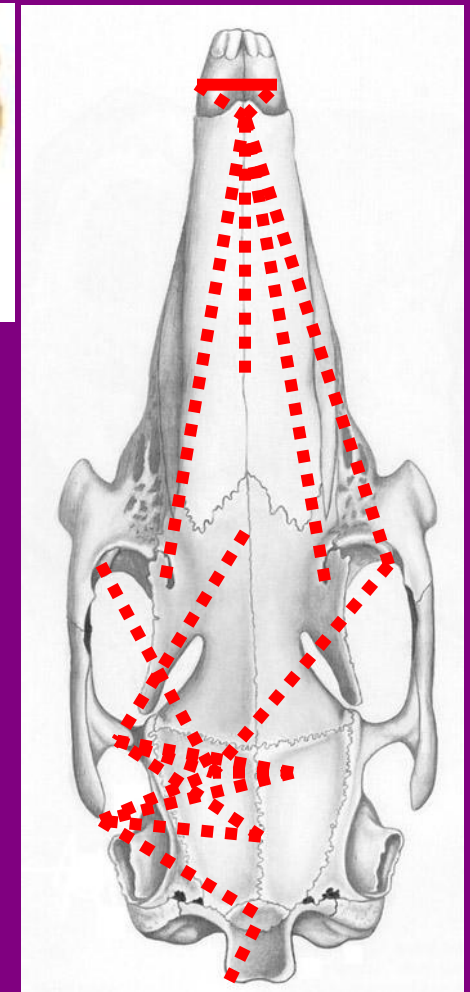


superior view

Mature scan
age ~84 days



lateral view

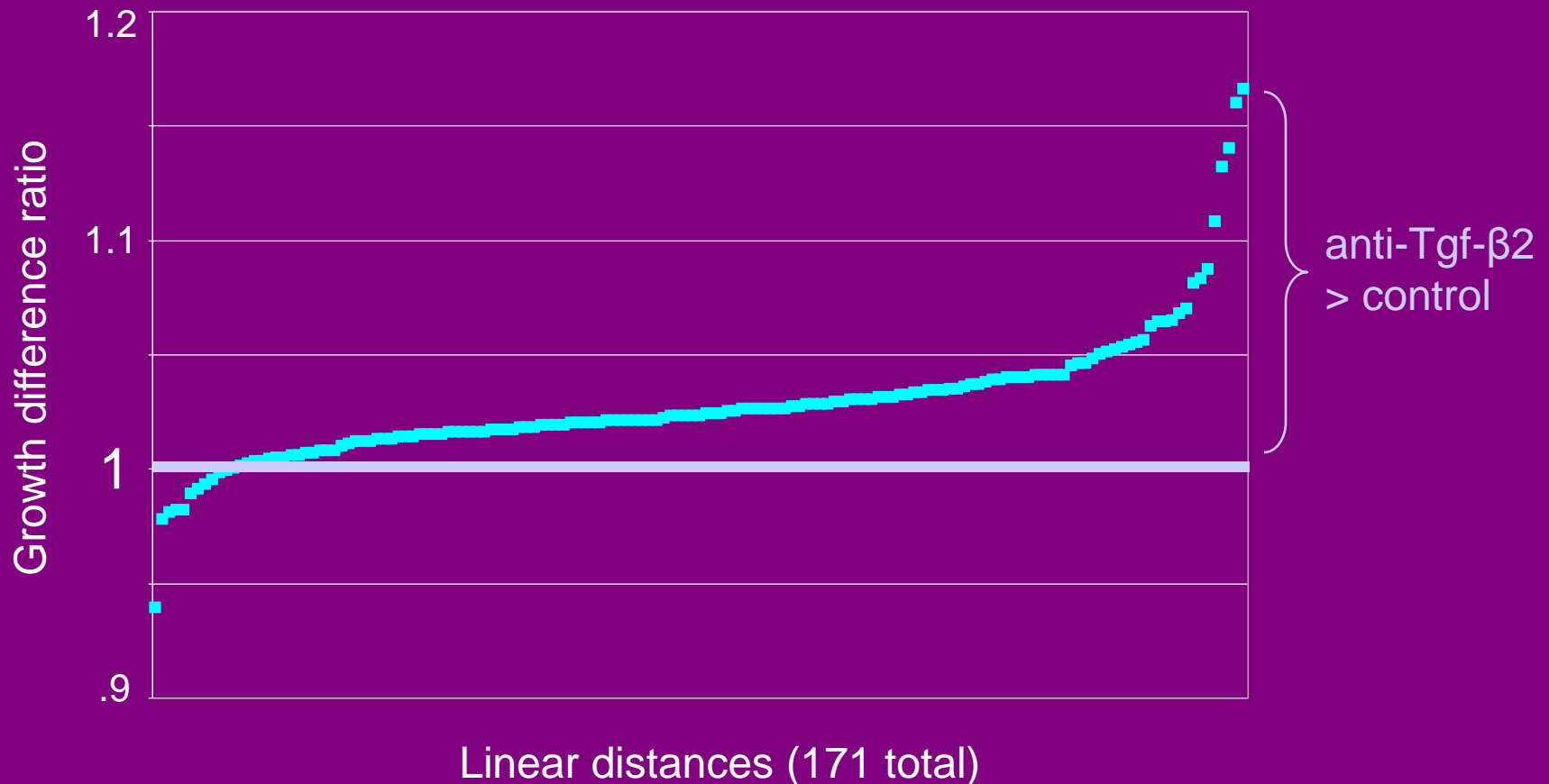


superior view

Growth Comparisons

anti-Tgf- β 2 vs. control

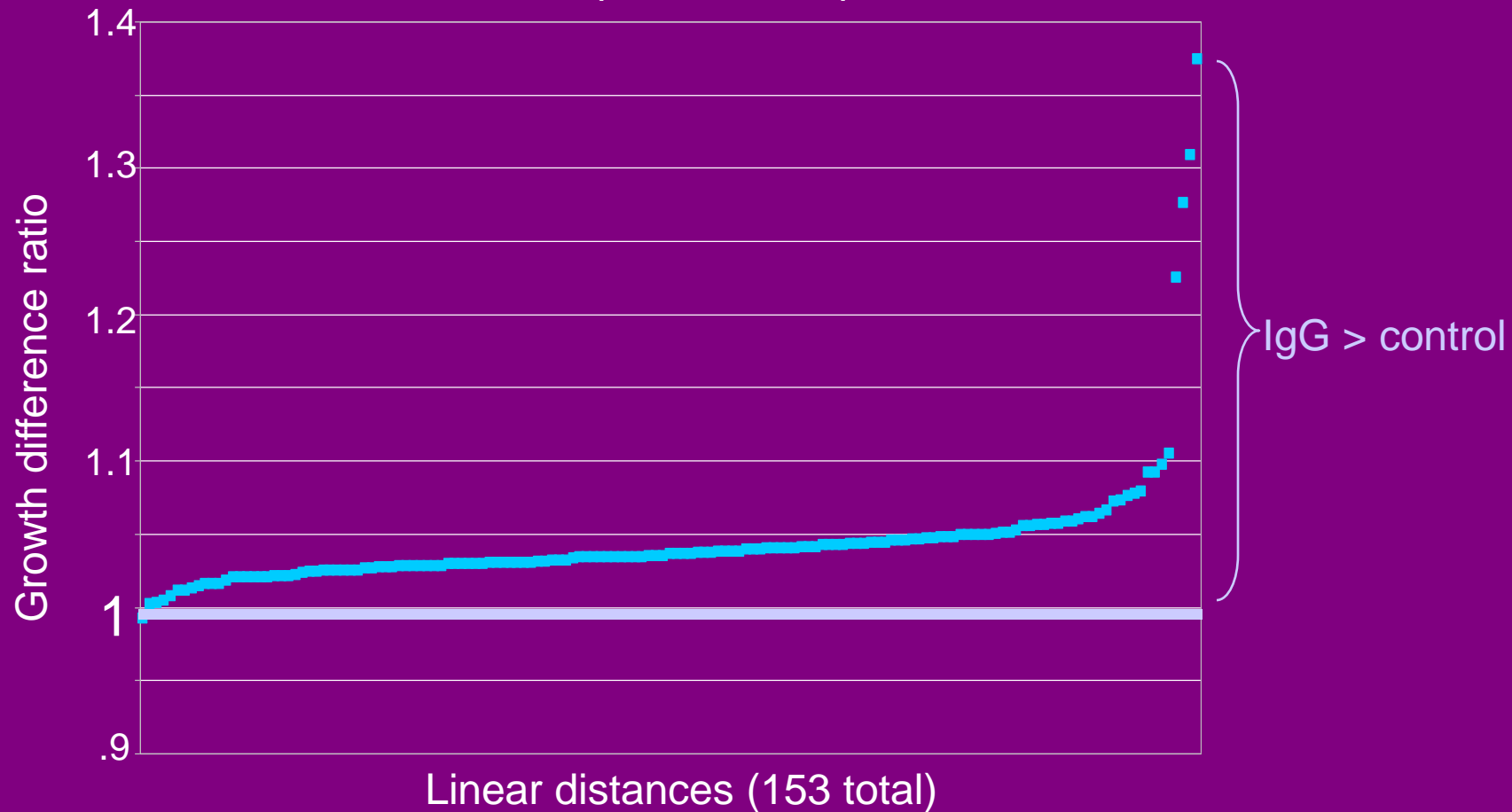
Graph of anti-Tgf- β 2 vs. control rabbits
between Peri-op and Post-op scans



Growth Comparisons

IgG vs. control

Graph of IgG vs. control rabbits
between Peri-op and Post-op scans



Conclusions

- Collagen vehicle itself may present some barrier (e.g., mechanical, biochemical) to resynostosis
- Tgf- β 2 inhibition probably has positive effect on cranial growth *in vivo*
- It is important to consider the biological as well as statistical significance of growth trends

Acknowledgements

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