BD™ Oxygen Biosensor System: Capabilities/Limitations

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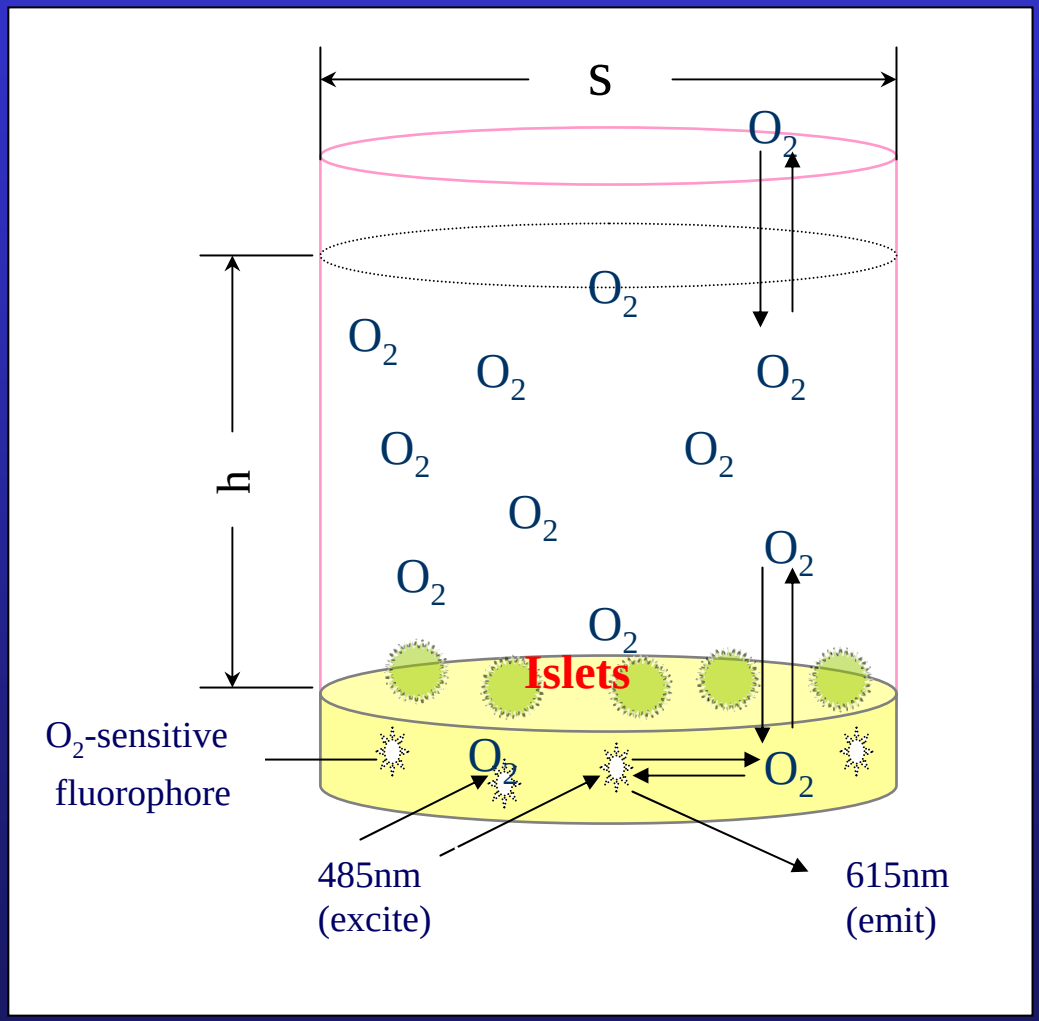
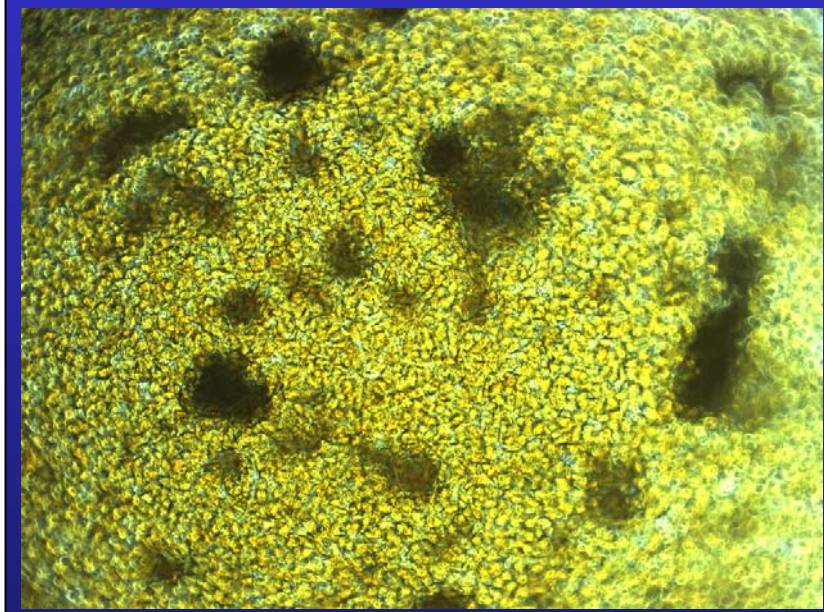
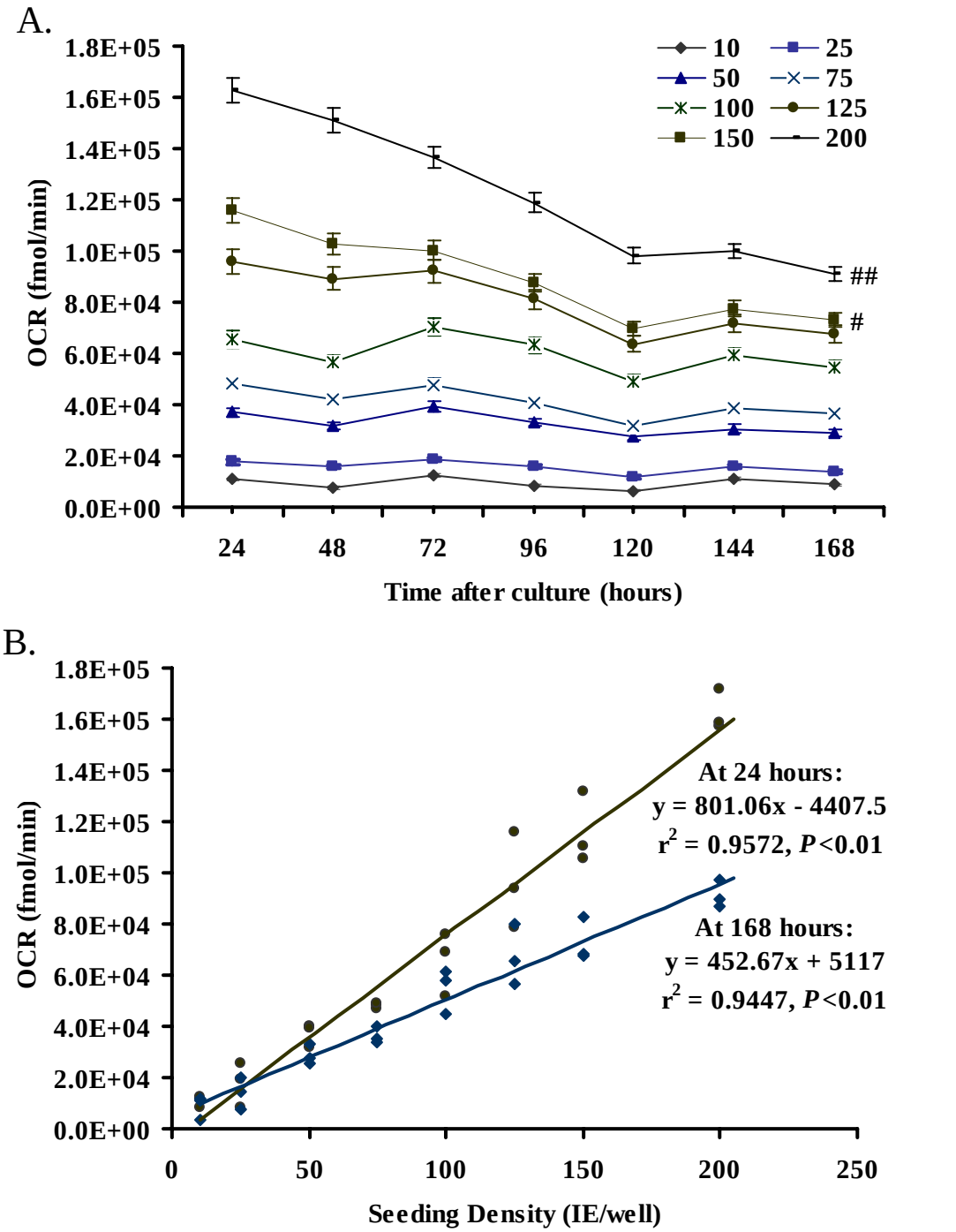
Oxygen Biosensor System (OBS)



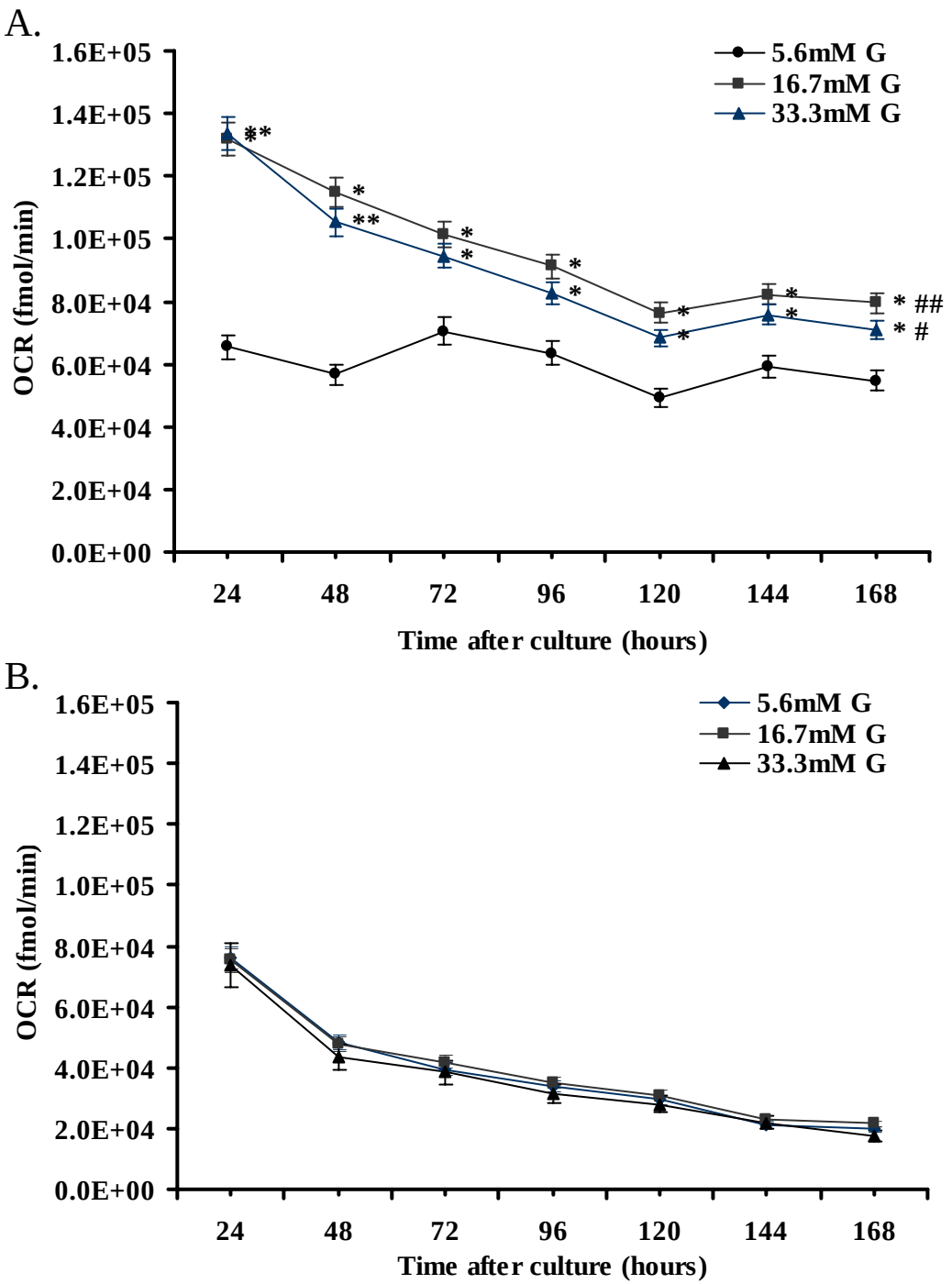


Effect of Seeding Density (non-human primate)



Wenjing Wang, et al.
Journal Endocrinology
(2005) 185, 445-455

Effect of [Glucose]
(non-human primate)



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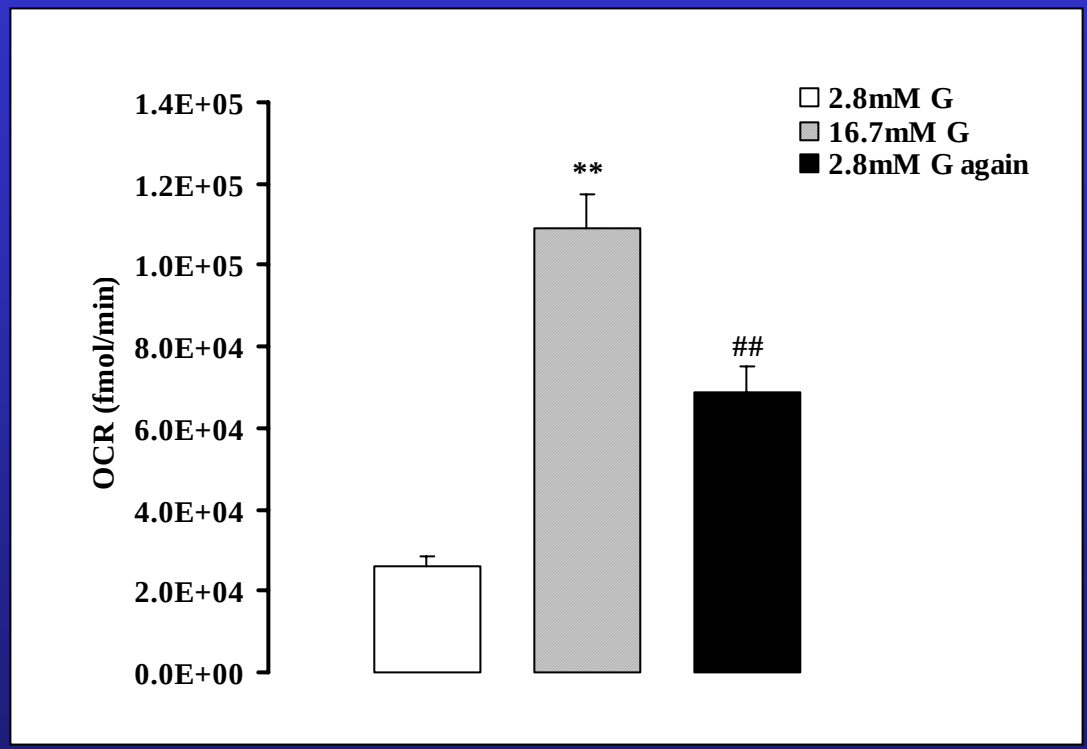
Effect of [Glucose] (non-human primate)



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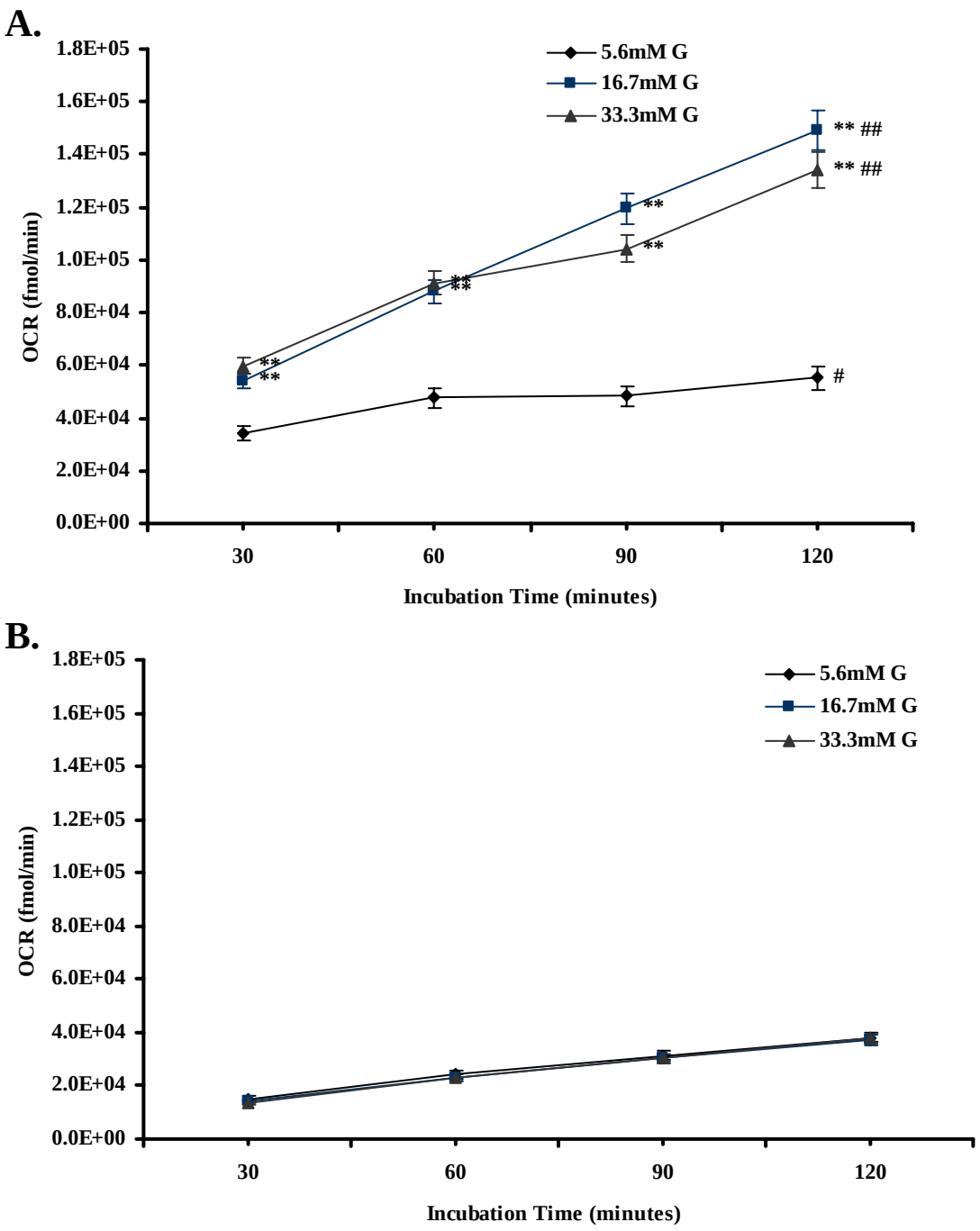
Effect of [Glucose]
(human islets)



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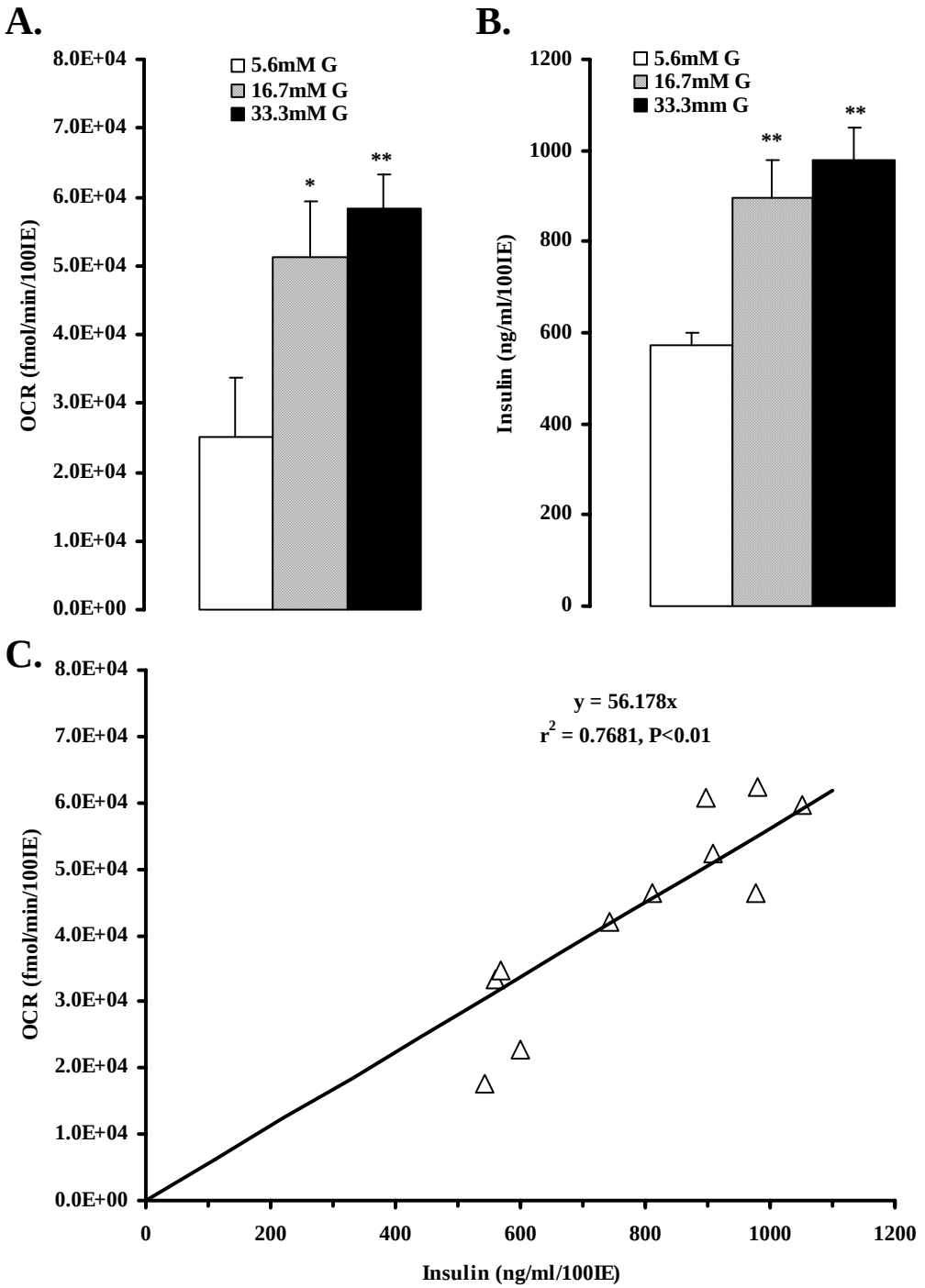
Insulin Secretion and OCR (human islets)



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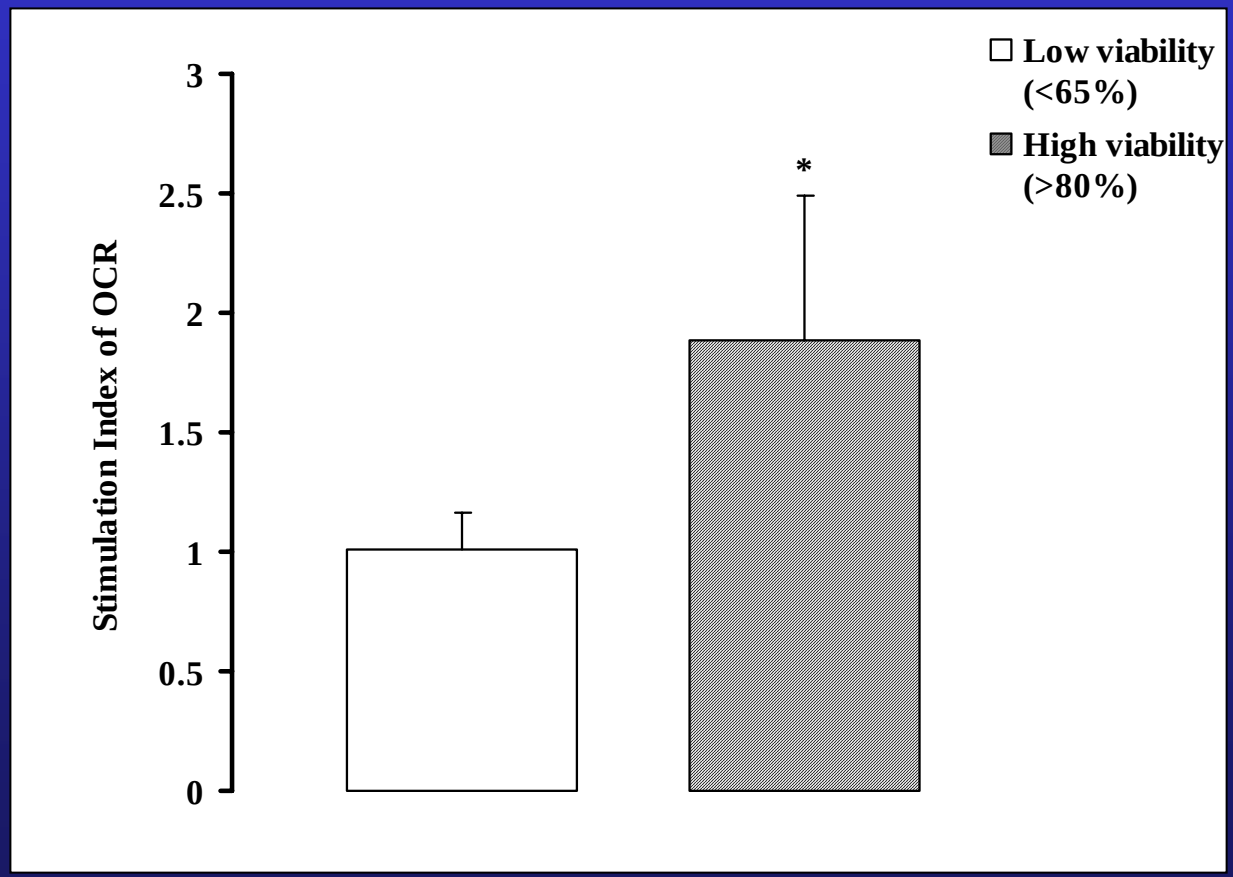
High vs. Low viability islets (human)



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Summary

-Seeding densities correlate with OCR

-Glucose stimulated OCRs are measurable with human islets. BD system has the sensitivity to distinguish between islets with high and low viability.

-Real-time kinetic measurements readily achievable.

-Simultaneous measurements of OCR and insulin secretion.

Current Studies

Is the BDTM Oxygen Biosensor System an effective approach for quickly assessing the functional viability of islets prior to transplantation?

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