

Beta Cell Interest Group (BIG) Seminar

Current and ongoing beta cell research is presented in this weekly seminar by faculty, postdoctoral fellows and students. If you are interested in attending the Beta Cell Interest Group (BIG) seminars and joining the BIG community, please contact [David Jacobson](#).

Keywords: [beta cell](#) [BIG](#)

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Meeting Details

Start Date / Time	April 23, 2014 at 9:00 AM
End Date / Time	April 23, 2014 at 10:00 AM
Duration	1 hour(s)
Location	512 Light Hall
Presenter Name	Maria Golson (Gannon)
Presentation Title	Using activated FoxM1 to enhance beta cell function and proliferation
Status	This meeting has already occurred

Meeting Agenda/Notes

FoxM1 is a transcription factor required for b-cell replication during normal postnatal growth, during gestation, and after partial pancreatectomy. Yet, transgenic overexpression of FoxM1 is not sufficient to augment b-cell mass, even after injury, possibly due to posttranslational regulation of FoxM1. To partially bypass this regulation, we derived a transgenic mouse line expressing an inducible, activated form of FoxM1 in b-cells (b-FoxM1* mice). While activated FoxM1 did not alter b-cell mass in two-month old mice, two weeks of expression in four-, eight- and twelve-month old mice effected increased b-cell mass, demonstrating rejuvenation of replicative potential. Unexpectedly, b-FoxM1* mice displayed enhanced insulin secretion and improved glucose homeostasis at two months, before any b-cell mass increase.