

# 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

<b>Start Date / Time</b>	July 22, 2015 at 9:00 AM
<b>End Date / Time</b>	July 22, 2015 at 9:55 AM
<b>Duration</b>	55 minutes
<b>Location</b>	512 Light Hall
<b>Presenter Name</b>	Hannah Worchel (Magnuson's lab)
<b>Presentation Title</b>	Inflammation Diverts Transcription Factor-mediated Acinar to Beta Cell Reprogramming to an Alternate Cell Fate
<b>Status</b>	This meeting has already occurred

## Meeting Agenda/Notes

Adenoviral delivery of Pdx1/Ngn3/MafA (3TF) to the pancreas of immunocompromised, Rag1<sup>-/-</sup> mice reprograms pancreatic acinar cells into insulin-expressing beta-like cells. However, we have found that tetracycline-induced acinar-specific expression of 3TF transgene in Rag1<sup>+/+</sup> mice does not result in the production of new insulin-secreting cells. Instead, 7 days of 3TF transgene expression results in the conversion of acinar cells into progenitor, duct-like cells and is associated with a potent inflammatory response with the pancreata exhibiting hallmarks of acinar-to-ductal metaplasia (ADM). We have found that when macrophages are depleted prior to and during inducing 3TF expression, the ADM-like phenotype does not occur, and acinar-derived beta-cells are generated.