

Beta Cell Interest Group (BIG)

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

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Meeting Details

Start Date / Time	April 13, 2016 at 9:00 AM
End Date / Time	April 13, 2016 at 9:55 AM
Duration	55 minutes
Location	512 Light Hall
Presenter Name	Bethany Carboneau (Maureen Gannon's lab)
Presentation Title	"Regulation of β -Cell Mass Expansion by Prostaglandin E2 Signaling"
Status	This meeting has already occurred

Meeting Agenda/Notes

Prostaglandins are important modulators of an array of physiologic functions including insulin secretion and systemic inflammation. EP3 and EP4 play opposing roles in many cell types due to signaling through different G proteins, resulting in G_i inhibition (EP3) or G_s stimulation (EP4) of adenylyl cyclase. We hypothesize that EP3 and EP4 play opposing roles in regulating β -cell mass expansion. Signaling via EP3 is predicted to inhibit β -cell proliferation whereas activation of EP4 is predicted to enhance β -cell proliferation and survival. I will discuss my studies using genetic and pharmacological tools to examine the effects of EP3 and EP4 signaling in β -cell proliferation and survival in vivo and in ex vivo studies using rodent and human islets.