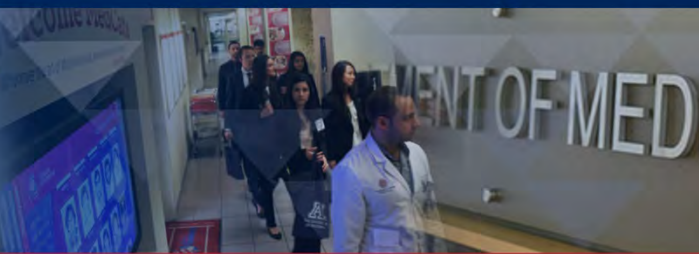
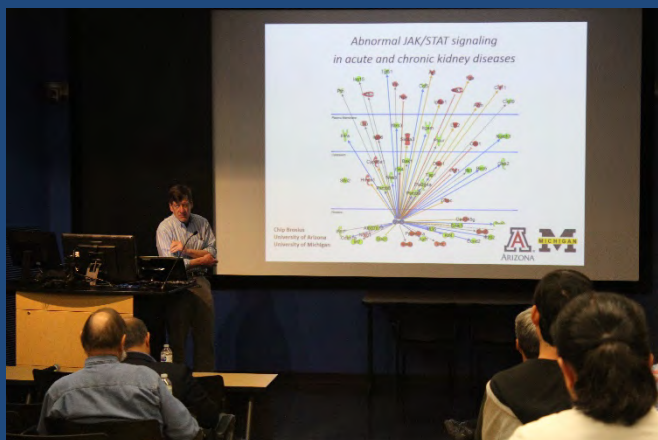
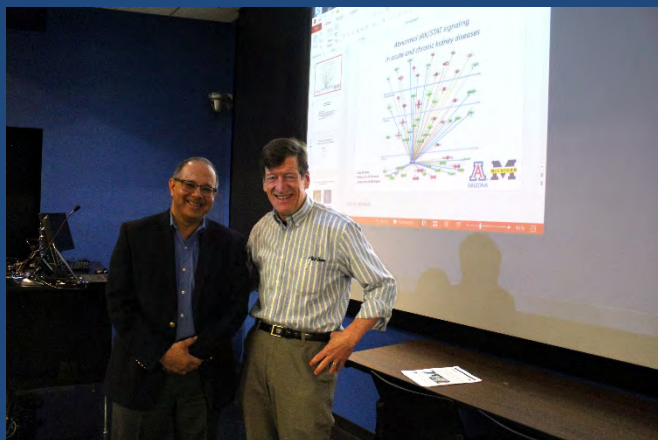




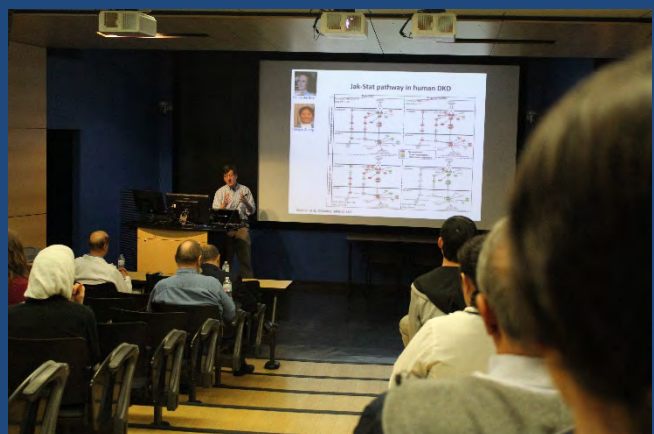
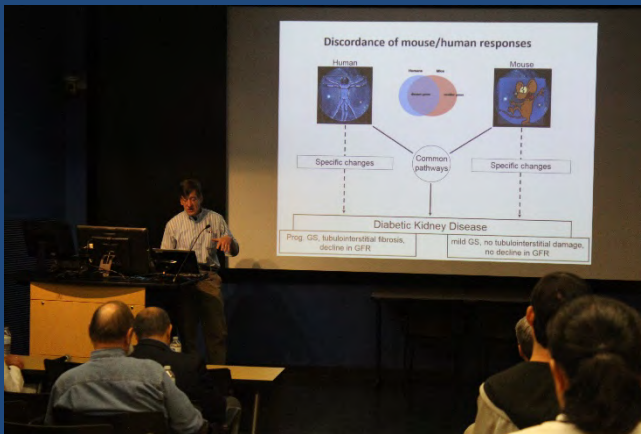
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Department
of Medicine

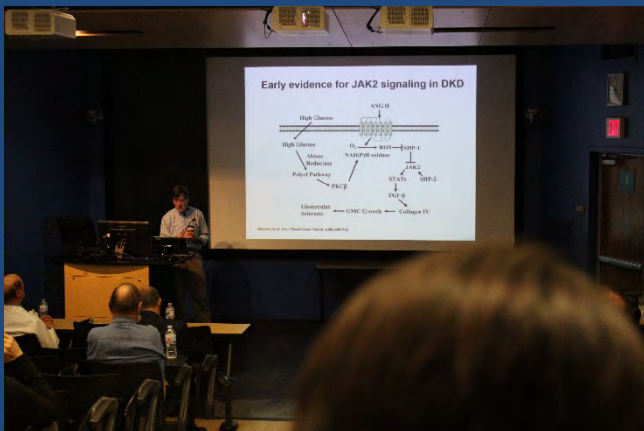
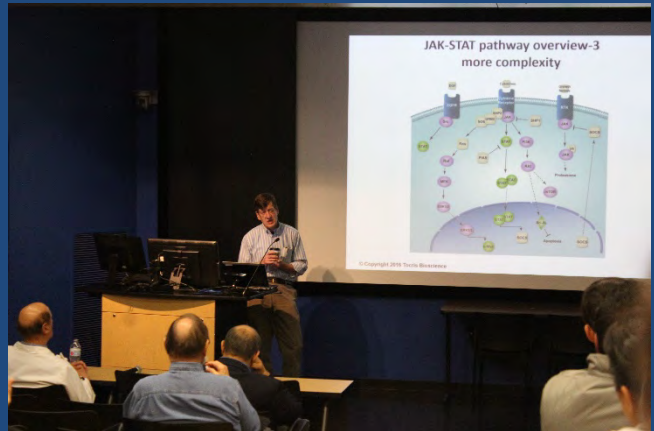
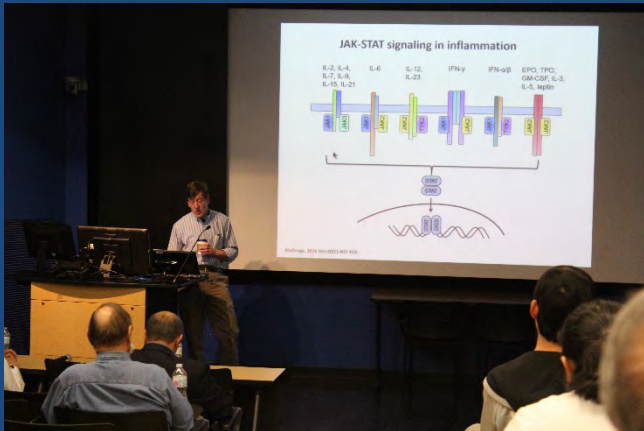
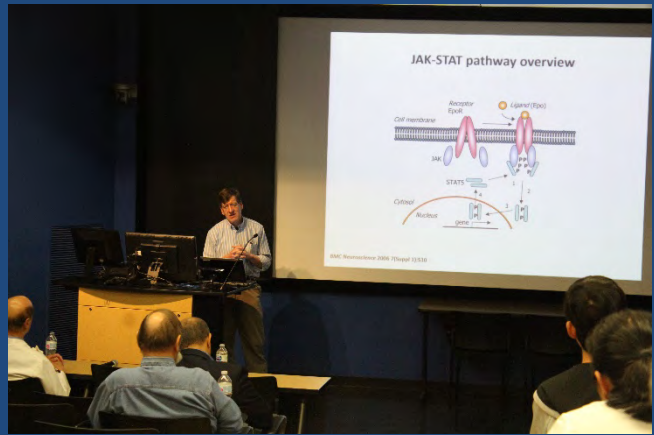


DOM Research Seminar with Frank C. "Chip" Brosius, III, MD – Jan. 11, 2018



UA Division of Nephrology's Dr. Chip Brosius, spoke on "Abnormal JAK-STAT Signaling in Acute and Chronic Kidney Diseases." Also a professor emeritus of internal medicine and physiology at the University of Michigan, where he was nephrology chief for 13 years, he joined the UA faculty in early 2017. Archived video can be viewed [here](#).







Generation of podocyte specific JAK2 transgenic mice

Honggu Zhang

Cross to transgenic mice that express Cre in specific cell types

- STOPFLOX JAK2 mice generated on a 129SvEvTac background.
- Podocyte specific cre mouse, Tg(NPHS2-cre) on 129SvEvTac background, as well as Jak2loxP^{+/+}, Akt1a^{+/+} mice.
- Instead of waiting 6 months for nephropathy to develop, we gave low dose Ang II by SQ minipump to 10-12 wk old mice for 4 weeks.

Zhang et al., Kidney Int, 2017 Oct;92(4):908-921



Albuminuria in diabetic JAK2 mice + AngII

Albuminuria (mg/day)

Control DM JAK2 JAK2 DM

Zhang et al., Kidney Int, 2017 Oct;92(4):908-921

Mesangial expansion in diabetic JAK2 mice + AngII

Control DM JAK2 JAK2 DM

Zhang et al., Kidney Int, 2017 Oct;92(4):908-921

Globally sclerotic glomeruli in diabetic JAK2 mice + AngII

Globally sclerotic glomeruli (%)

Control DM JAK2 JAK2 DM

Zhang et al., Kidney Int, 2017 Oct;92(4):908-921

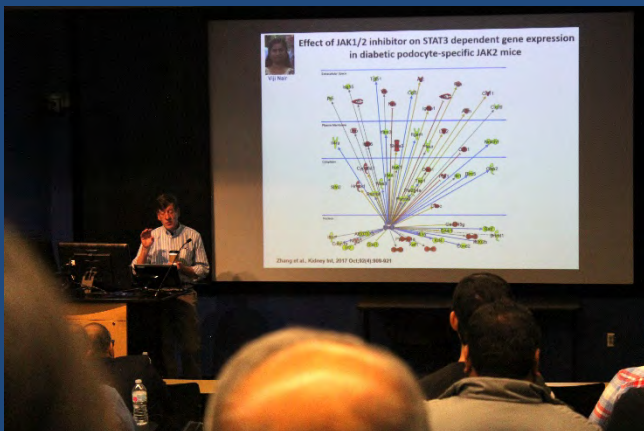
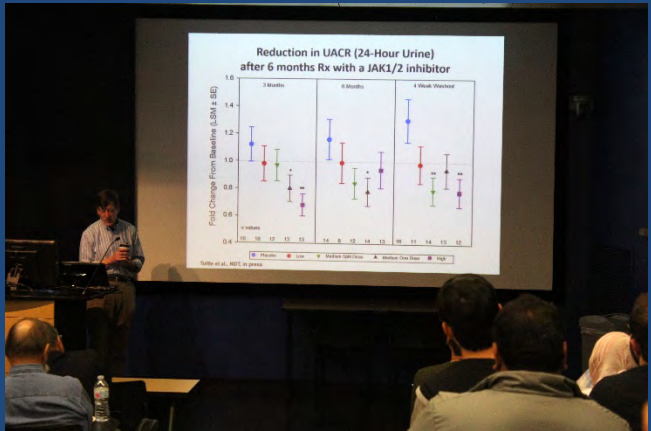
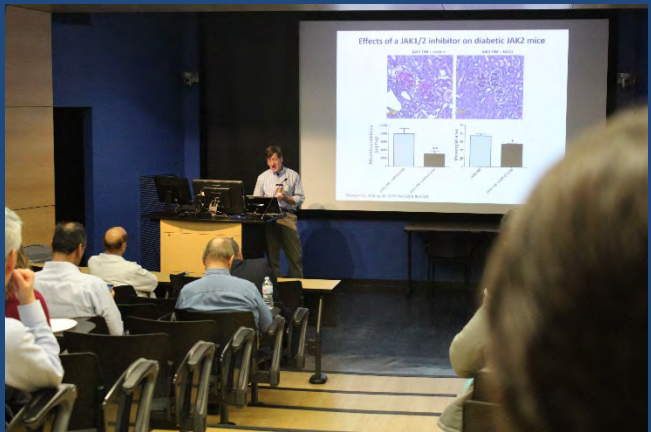
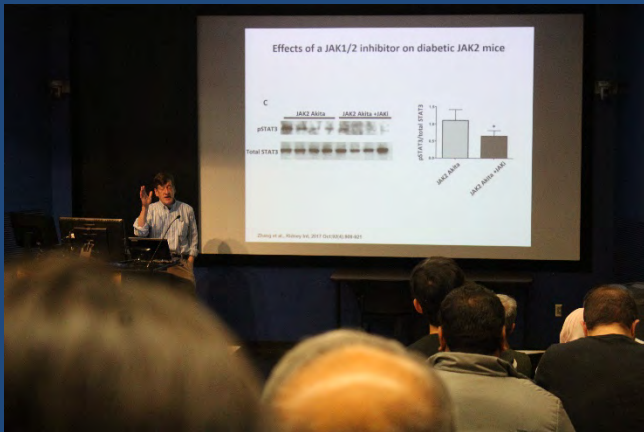
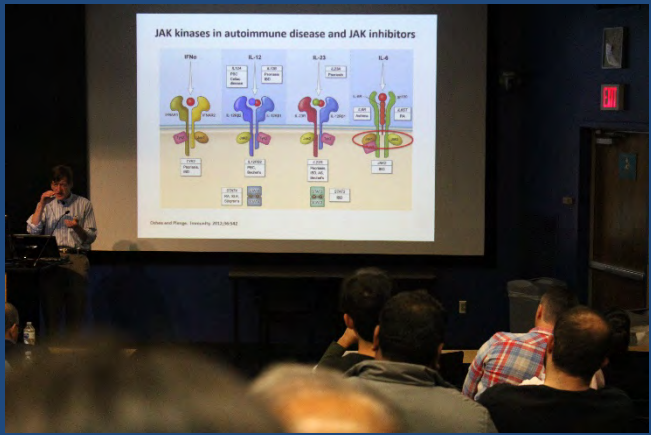
GBM thickness in diabetic JAK2 mice + AngII

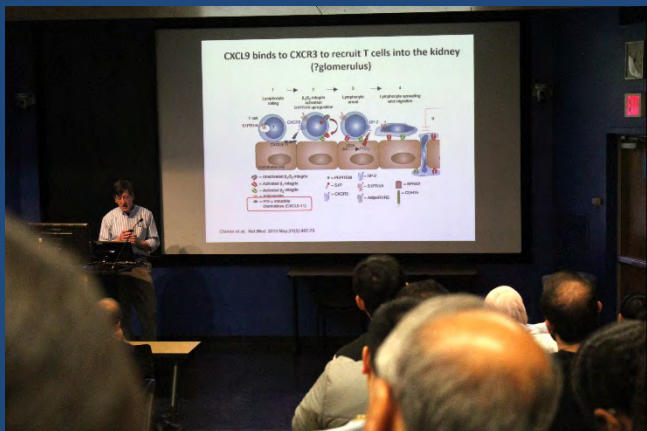
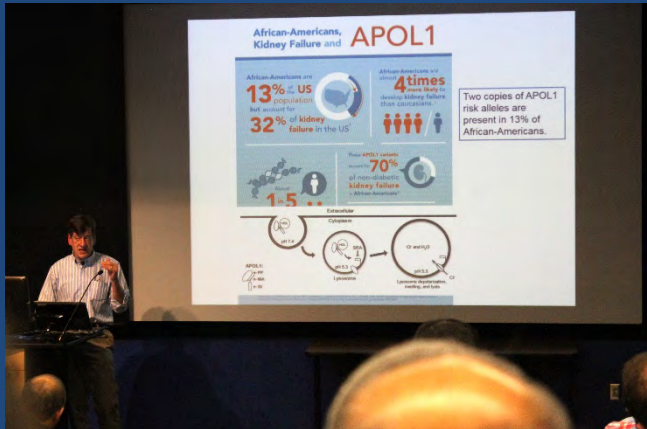
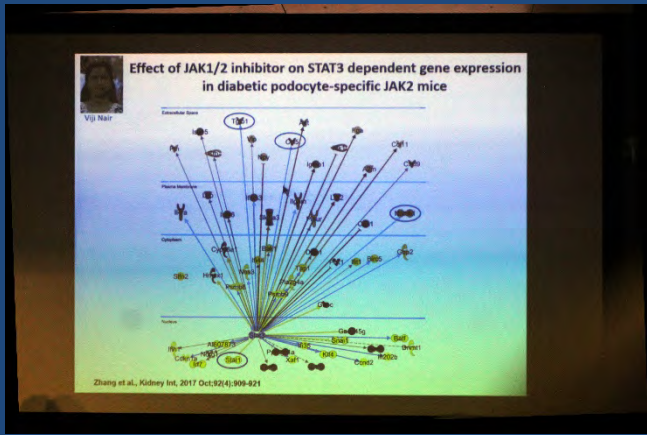
Wild-type JAK2

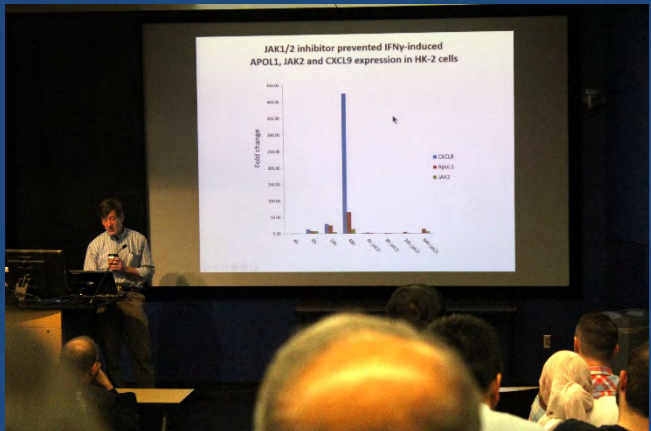
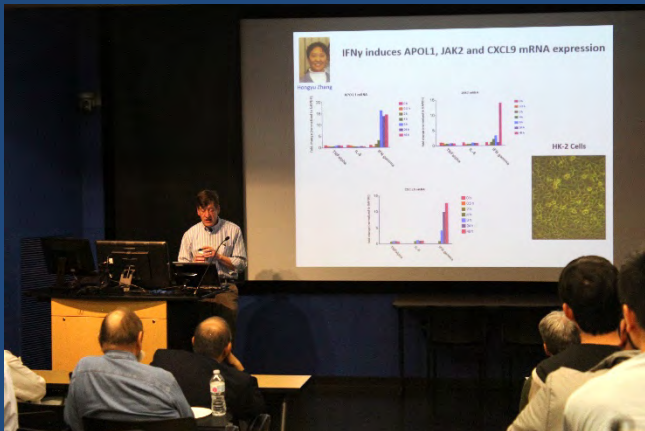
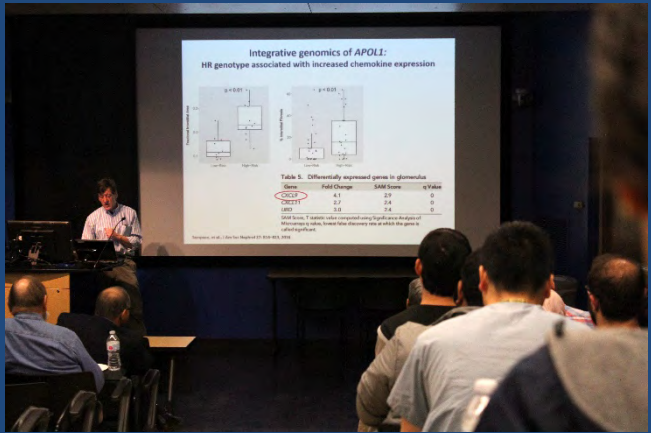
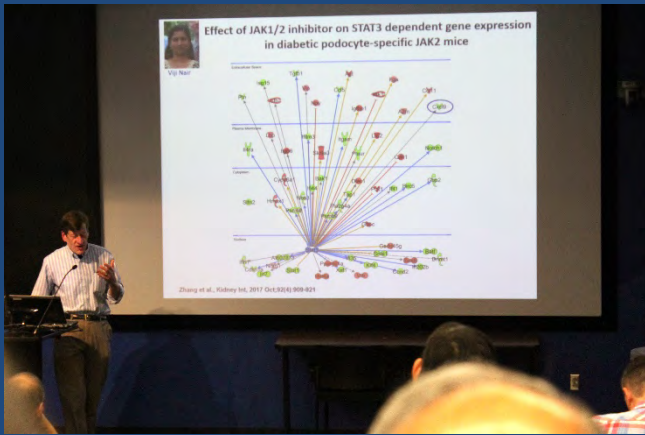
Diabetic Control

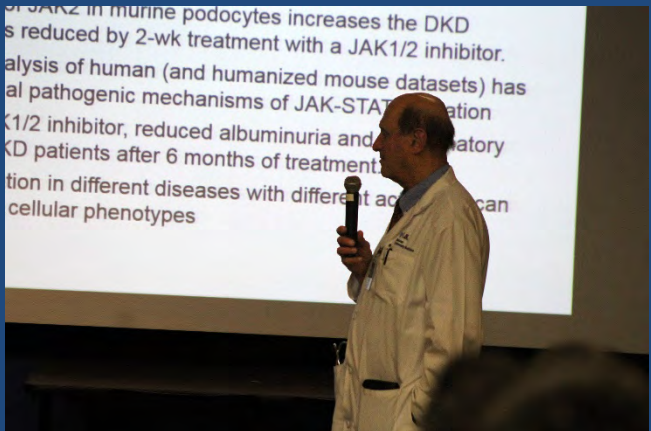
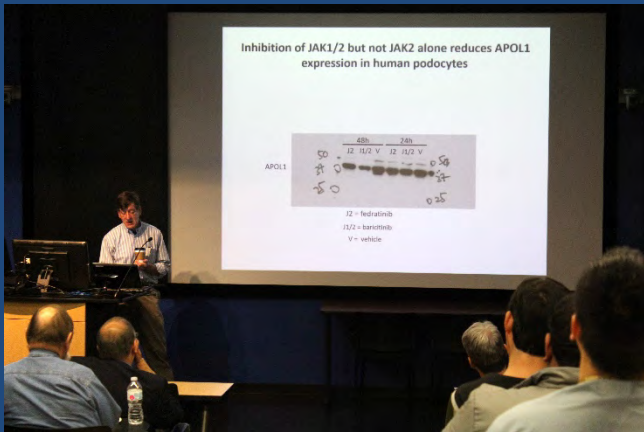
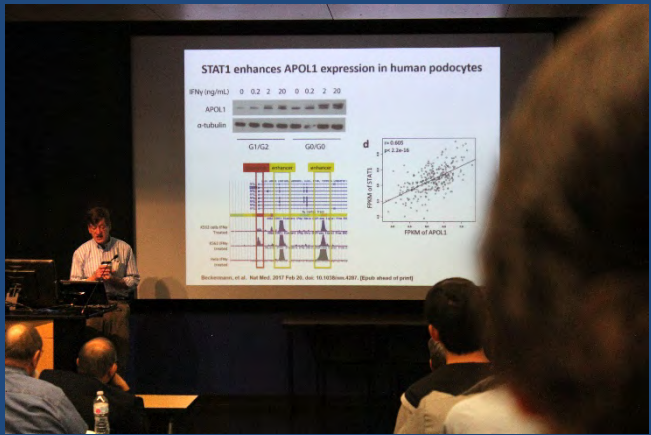
GBM thickness (μm)

Zhang et al., Kidney Int, 2017 Oct;92(4):908-921









Photos courtesy of David Mogollón, Communications Coordinator, UA Department of Medicine, (520) 626-1137 or dmogollon@deptofmed.arizona.edu