

## Research Interests

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### ***Kathryn Wellen Ph.D.***

The Wellen laboratory studies how intracellular metabolite levels influence signaling and gene expression. Signaling activities and associated factors as well as transcription activators are modified through acetylation and glycosylation, sensitive to metabolic changes especially in cancer cells and during viral infections. They have shown that histone acetylation and related gene expression changes are responsive to glucose levels dependent on ATP-citrate lyase modified in response to nutrient levels. They are investigating how ATP-citrate lyase regulates acetylation and its impact on gene expression in cancer and infected cells. They are using HCMV as a model system for studying changes in citrate lyase and histone acetylation post-infection by HCMV and the changes in nutrient levels that impact citrate lyase expression as well as nutrient levels in the infected cells.

*Interactions with other trainers:* Dr. Wellen actively participates in all training related activities. She interacts with Drs. Yang, Greenberg and Witze and Robertson, and members of the training program who strongly support junior faculty.