Corin is a potential inhibitor of EWS-FLI1 activity in Ewing Sarcoma

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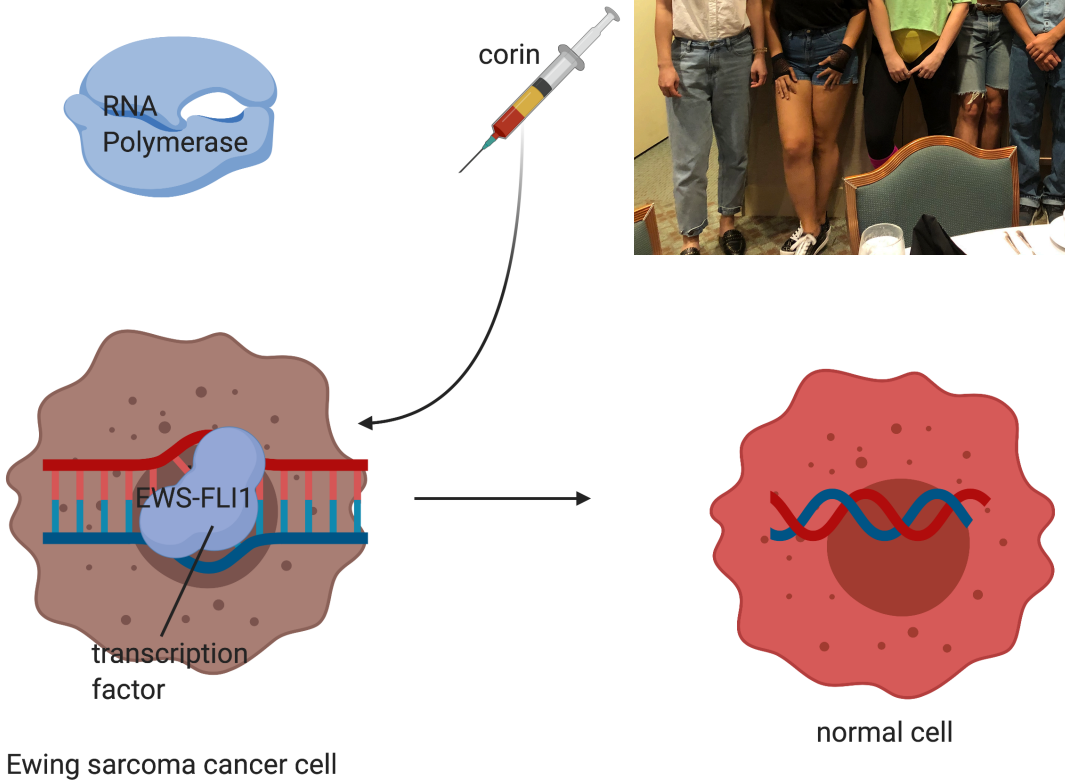

- Tumor specific changes in chromatin accessibility are related with many cancers, like Ewing sarcoma
- Most Ewing sarcoma was caused by the fusion oncoprotein EWS-FLI1
- Histone deacetylase inhibitors (HDACi) are effective in decreasing the mRNA transcription of EWS-FLI1
- Lysine specific demethylase (LSD1) inhibitors could disrupt the activity of EWS-FLI1, and LSD1 is also overexpressed in Ewing sarcoma
- Corin is a dual inhibitor of both HDAC inhibitor and LSD1 inhibitor

- 0.1% DMSO as positive control group, corin & 0.1% DMSO as experimental groups, 25% DMSO as negative control group
- 90% cells are alive at 300nM corin, with 27,500 cells/well for 24-hour treatment
- We will further investigate the chromatin accessibility change in Ewing sarcoma cells with and without corin treatment
- If no differences are seen, we would change the incubation time
- If decreasing chromatin accessibility or transcription of EWS-FLI1 is seen at aberrant sites, corin could be used as a future therapy for cancer