

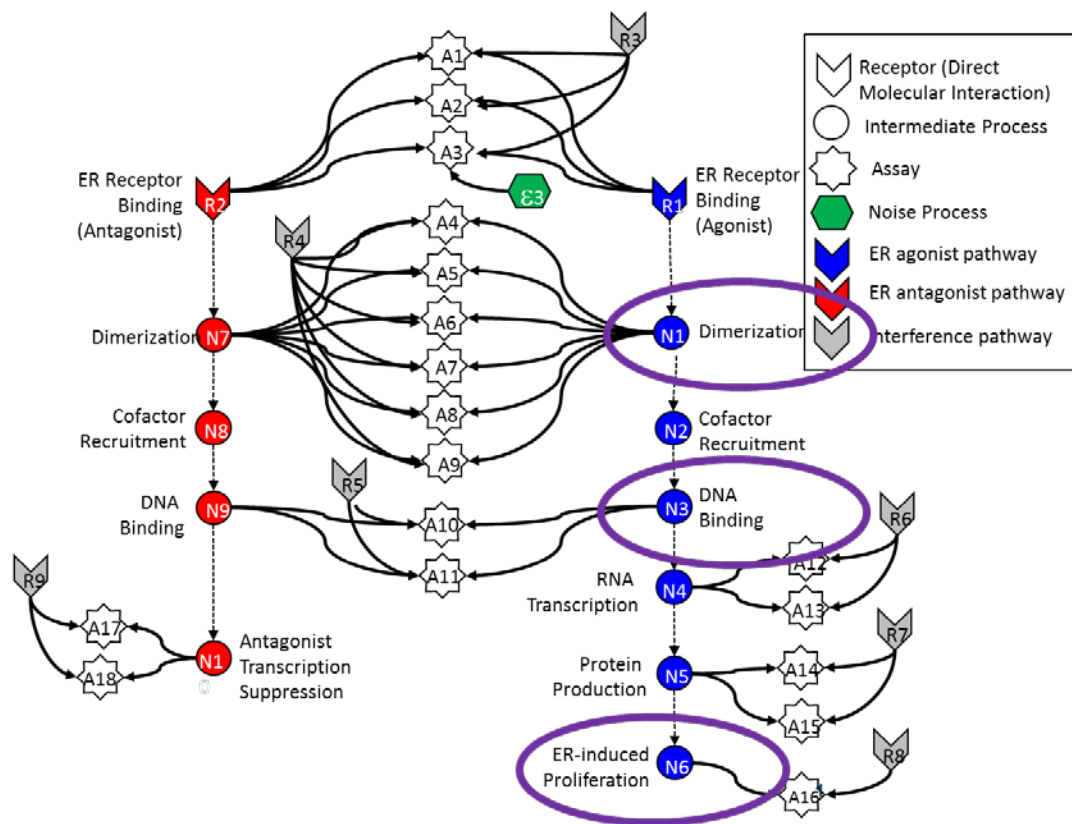
EPA's ToxCast Program: Update on CBCRP-Relevant Work

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CBCRP
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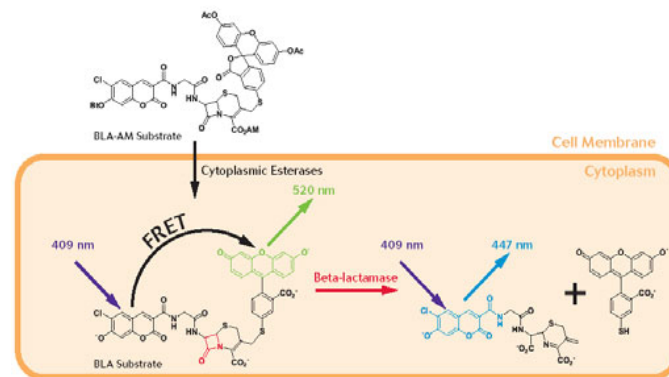
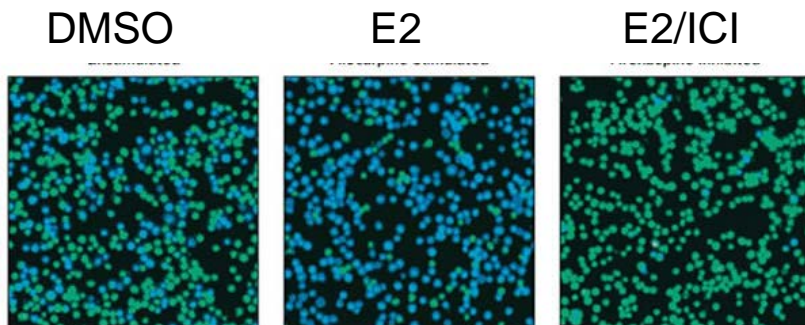
ER Pathway Model



- Manuscript in progress defining minimal number of assays required for good model
- Testing of additional compounds in reduced model in progress

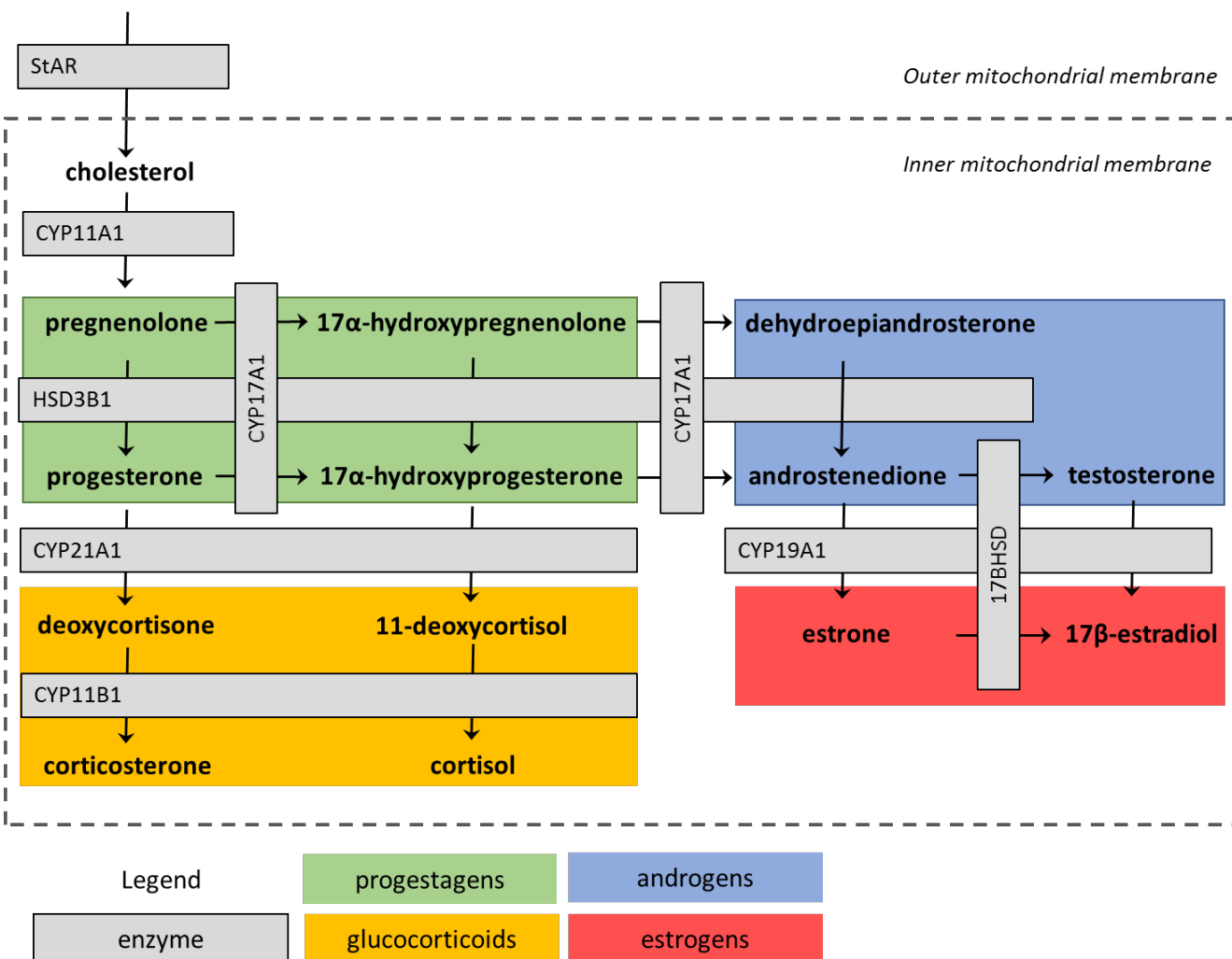
Human Estrogen Receptor β

- Gene Blazer mammalian one-hybrid reporter gene assay
- Tox21 qHTS assay completed on 10K library
- Data being analyzed
- Likely public later this year



Steroidogenesis Assay: H295R Cells

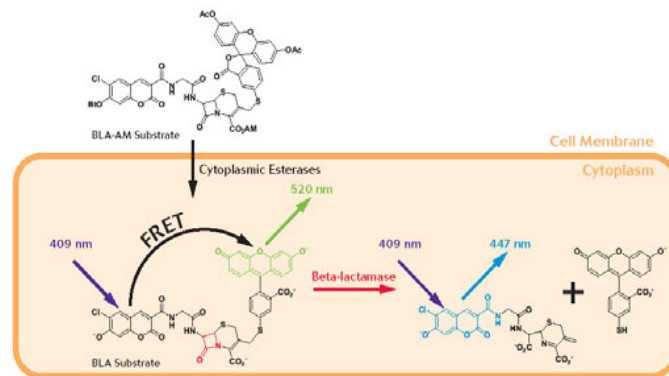
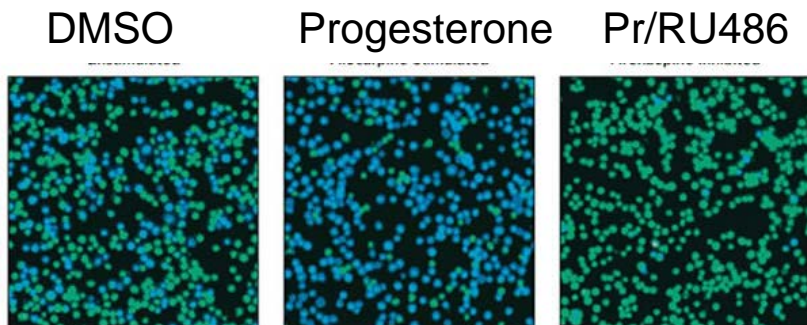
H295R *human adrenocortical carcinoma cells*



- Now data available for 2060 chemicals in at least single concentration screening
- Some in concentration-response
- More to be added in concentration-response this year
- New analysis methodology being explored (K. Paul-Friedman)

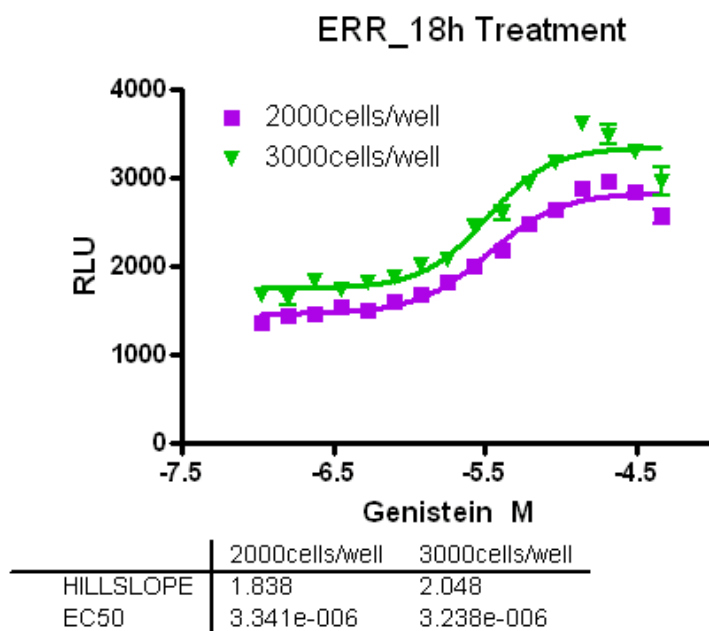
Human Progesterone Receptor

- Gene Blazer mammalian one-hybrid reporter gene assay
- Tox21 qHTS screens completed on 10K library
- Agonist and Antagonist mode
- Analysis in progress
- Manuscript and data expected later this year

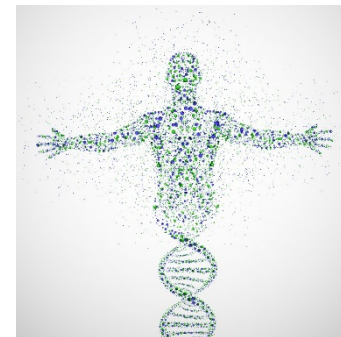


Human ERR- α

- Tox21 qHTS assay run on 10K library
- Two cell lines: +/- PGC1 α coactivator
- Agonist and Antagonist modes
- Manuscript prepared (C. Teng *et al.*)



HTTr: High-Throughput Transcriptomics



- Whole transcriptome profiling
- Initial cell type is MCF7
- TempO-Seq platform (BioSpyder)
- Initial assay design work completed
- Pilot study of 44 reference chemicals, 8 conc and 3 time-points nearly completed (data this month)
- Large scale testing of approximately 1000 chemicals at 1 time-point to follow this year