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| **The new schedule is made based on the discussion of 8.03.2016 meeting**  RC: Specify relation between AU, XG experiments #’s again. Make repeat plan directly analogous to that of AU per latest comments. Assuming triplicate is applied for initial rate experiments. **Triplication for initial rate experiment is required.** | | | | |
| **Align AU#** | **Task #** | **Status** | **In-house Enzyme** | **Repeat** |
| **PMC-AU1** | **PMC-XG1-1**: **Deacetylated FdL2 peptide to check the detection limitation of old HPLC**  **[Pep-3]=0.25, 0.5, 1.0, 1.5 uM** | *7.26. 16 - 7.29. 16 Done. Minimum*  *[FdL2 peptide] is 3 uM.* | No | Intra and inter-day |
|  | **PMC-XG1-1’: DHP1c solution preparation**  To validate how accurate the DHP1c solution concentration made different day for both Citizen MicroBalance and Sartorius Semi-MicroBalance. Weigh different mass of DHP1c sample, then prepare the solution, run on HPLC, find out the linear relationship between peak area and [DHP1c] | *Done*  *Solubility test has been sent out. Waiting for the results.* | No | Citizen Micro and  Sartorius Semi micro  Balance |
| **PMC-AU2** | **PMC-XG2**: **Deacetylation reactions condition modification within HPLC detection limitation**-**FdL2 peptide.**  [FdL2 peptide] = 3uM  [NAD+] = 3000uM  [Enzo SIRT3 and in-house SIRT3] = 10 U  Time point = 5, 30 min | *Done* | 80 U (60ul)  **SM previous batch\_6+7 (no FPLC): 1.6U/ul** | Duplicate |
| **PMC-AU3** | **PMC-XG3**: **Deacetylation reactions condition modification within HPLC detection limitation- NAD+.**  [FdL2 peptide] = 250uM  [NAD+] = 10, 25, 50, 75, 100 uM  [Enzo SIRT3 and in-house SIRT3] = 10 U  Time point = 5, 30 min | *Done. Minimum [NAD+] is 10 uM.* | 200U  (150 ul)  **SM batch\_6+7 1.6U/ul** | Duplicate |
| **PMC-AU4** | **PMC-XG4-1**: **DHP2c dose response experiment-HPLC**  ***Condition 1:*** [FdL2 peptide] = 3uM  [NAD+] = 3000uM  ***Condition 2:***[FdL2 peptide] = 250 uM  [NAD+] = 10 uM  ***Condition 3:***[FdL2 peptide] = 250 uM  [NAD+] = 500uM  [DHP2c]=0, 5, 10, 25, 50, 100, 200, 400uM  [Enzo SIRT3 and in-house SIRT3] = 10 U  Time point = 30 min  Total 3x7x3=63 reactions for triplicate(9 days) | *8.31.16-9.13.16*  *Done*  *Note: Was held for the solubility results, which was completed by 8.30.16. The experiments are expecting to start on 8.31.16. DHP2c will be used to replace DHP1c.* | 540U  (360 ul)  **SM previous batch\_6+7 (no FPLC): 1.6U/ul** | Repeats  (N=3/4) |
| **Patent Prep.** | **Patent preparation** | *9.6.16-9.14.16. Done* | | |
| **PMC-AU4** | **PMC-XG4-2: Standard curve with custom synthesized peptide in HDAC, and desired concentrations of DHP2c in HDAC buffer.**  Peptide 3 (deacetylated FdL2 peptide) will be used as standard.   1. The standard will be run under 8 different solution conditions (0.46875, 0.9375, 1.875, 3.75, 7.5, 15, 30uM). This will cover the conditions used in endpoint and initial rate experiments. 2. Also, Enzo standard will be used for comparison. | *9.15.2016 – 9.19.2016*  *Done* | No | Duplicate |
| **PMC-AU4** | **PMC-XG4-3**: **DHP1c dose response experiment-FdL assay on TeCan**  ***Condition 1:*** [FdL2 peptide] = 3uM**;** [NAD+]=3000uM  ***Condition 2:*** [FdL2 peptide] = 250 uM; [NAD+] = 10uM.  ***Condition 3:***[FdL2 peptide] = 250 uM; [NAD+] = 500uM  [DHP2c]=0, 5, 10, 25, 50, 100, 200, 400uM.  [Enzo/In-house SIRT3] = 10 U  Time points = 0, 60 min | *9.20.2016 – 9.26.2016*  *Done* | 800U (800ul)  **SM new FPLC batch**  **Combined Batch 2 1U/ul** | Duplicate |
| **Literature search** | **Literature search for “Screening assay for sirtuins’ modulator”** | *9.21.2016-9.26.2016*  *Done* | No other fluorogenic assay is available for our system. | |
| **PMC-XG 5**  **Initial rate Honokiol-in-house SIRT3 in the presence of NAM- Km, Vmax vs. [NAD+]** | **PMC-XG 5-1: Honokiol dose response experiment-FdL assay on TeCan**  ***Condition 1:*** [FdL2 peptide] = 30uM**;** [NAD+]=3000uM  ***Condition 2:*** [FdL2 peptide] = 250 uM; [NAD+] = 25uM.  [DMSO]=5%  [Honokiol]=0, 5, 10, 25, 50, 100, 200, 350uM  [In-house SIRT3] = 10 U  Time points = 0, 60 min | *9.28.2016 – 9.30.2016*  *Done* | 280U (280ul)  **SM new FPLC batch**  **Combined Batch 2 1U/ul** | Duplicate |
| **PMC-XG 5-2: Honokiol dose response experiment-FdL assay on HPLC**  ***Condition 1:*** [FdL2 peptide] = 30uM**;** [NAD+]=3000uM  ***Condition 2:*** [FdL2 peptide] = 250 uM; [NAD+] = 25uM.  [DMSO]=5%  [Honokiol]=0, 5, 10, 25, 50, 100, 200, 350uM  [In-house SIRT3] = 10 U  Time points = 0, 60 min | *10.03.2016 - 10.07.2016*  *Done* | 280U (280ul)  **SM new FPLC batch**  **Combined Batch 2 1U/ul** | Duplicate |
| **PMC-XG6-1**: **Minimum peptide concentration -SIRTainty assay-TeCan**  [NAD+] = 2.5 mM  [MnSOD K122]= 0, 2.5, 5, 6.25, 12.5 uM  [In-house SIRT3]=10 U  %DMSO = 5%  Time point= 0, 10, 30 min | *2 days* | Duplicate |  |
| **PMC-XG6-2**: **Resveratrol dose response experiment-SIRTainty assay-TeCan**  ***Condition 1:*** [MnSOD K122] = will obtain from XG6-1  [NAD+] = 2.5 mM  ***Condition 2:***[MnSOD K122] = 600 uM  [NAD+] = 50 uM  %DMSO = 5%  [Resveratrol]=0, 5, 10, 25, 50, 100, 200, 400 uM  [Honokiol] = 0, 200uM  [in-house SIRT3] = 10 U  Time point = 60 min | *3 days* | Duplicate |  |
| **PMC-XG 5-3**: **Optimize suitable NAM concentration for initial rate study on TeCan**  [In-house SIRT3]=10 U  [FdL2 peptide]=250 uM  [NAD+]= 25uM  [Honokiol]=200uM  [DMSO]=5%  [NAM] = 0, 10, 25, 50, 100, 200 uM  Time point=0, 60 min | *10.10.2016 - 10.13.2016*  *Done* | 200U (200 ul)  **SM new FPLC batch**  **Combined Batch 2 1U/ul** | Duplicate |
| **PMC-XG 5-4: Initial rate Honokiol-in-house SIRT3- Km, Vmax vs. [NAD+] on TeCan**  [In-house SIRT3]=10 U  [FdL2 peptide]=250 uM  [NAD+]= 50, 100, 375, 750, 1500, 3000uM  [Honokiol]=200uM  [DMSO]=5%  [NAM] = 25 or 50 uM  Time point=0, 5, 10, 20, 30, 45, 60, 120min | *10.14.2016 - 11.04.2016*    4800U (4800ul);Triplicate  **At this point, more enzyme is needed** | | |