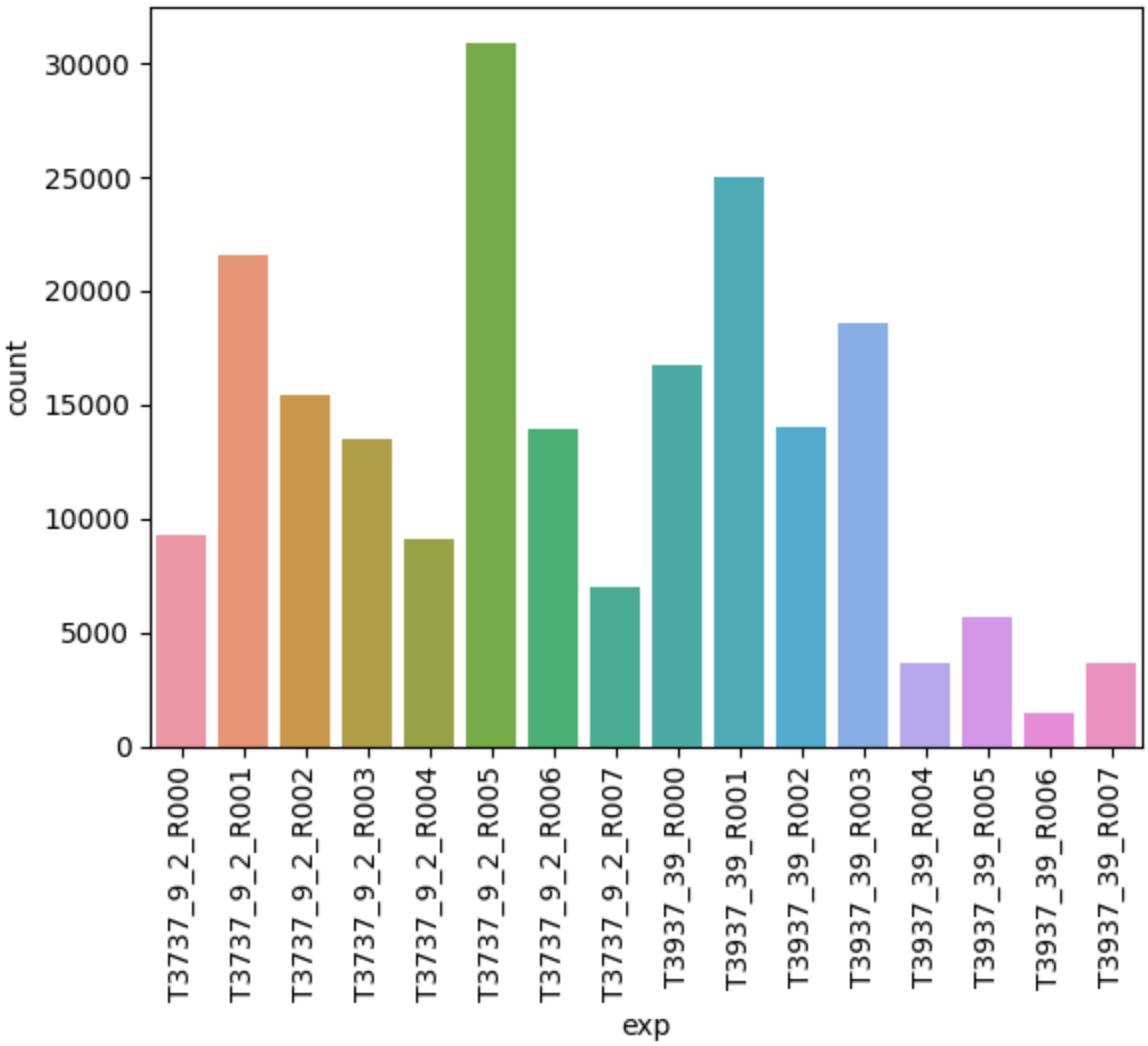
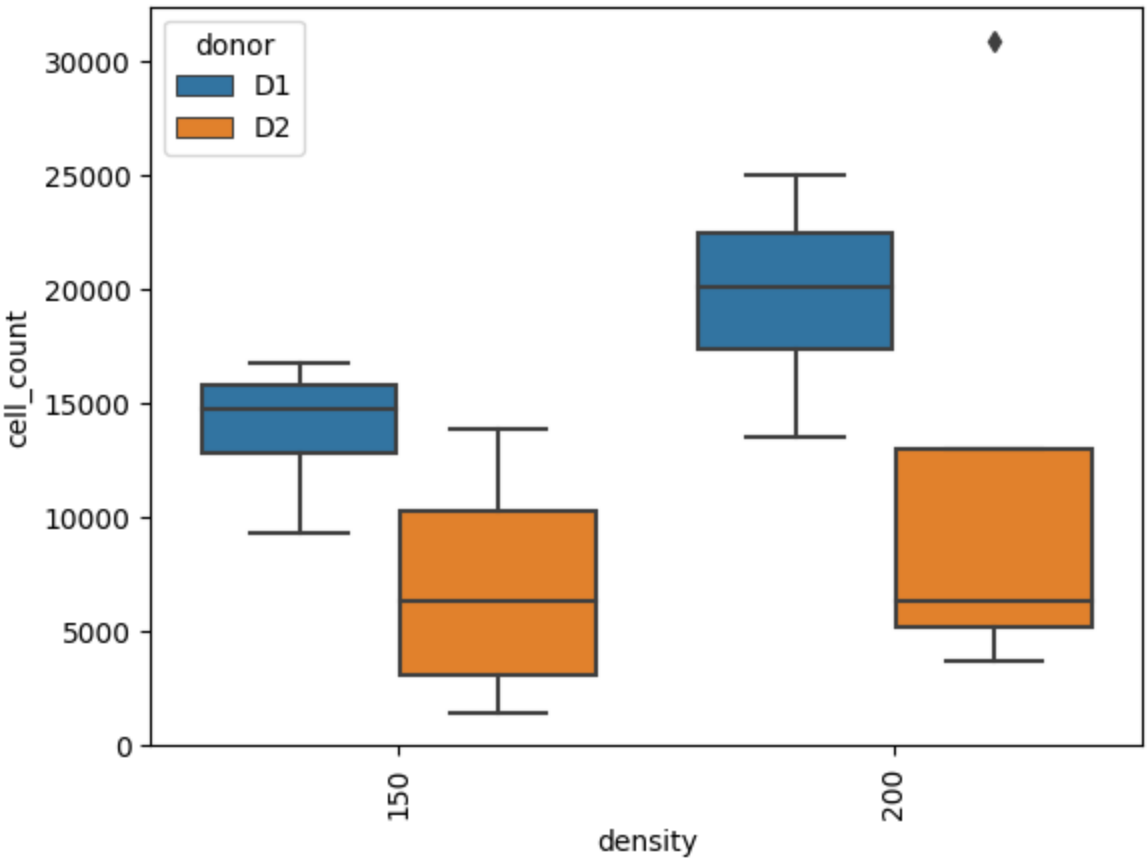
```
['T3737_9_2_R000.pkl',
 'T3737_9_2_R001.pkl',
 'T3737_9_2_R002.pkl',
 'T3737_9_2_R003.pkl',
 'T3737_9_2_R004.pkl',
 'T3737_9_2_R005.pkl',
 'T3737_9_2_R006.pkl',
 'T3737_9_2_R007.pkl',
 'T3937_39_R000.pkl',
 'T3937_39_R001.pkl',
 'T3937_39_R002.pkl',
 'T3937_39_R003.pkl',
 'T3937_39_R004.pkl',
 'T3937_39_R005.pkl',
 'T3937_39_R006.pkl',
 'T3937_39_R007.pkl']
```

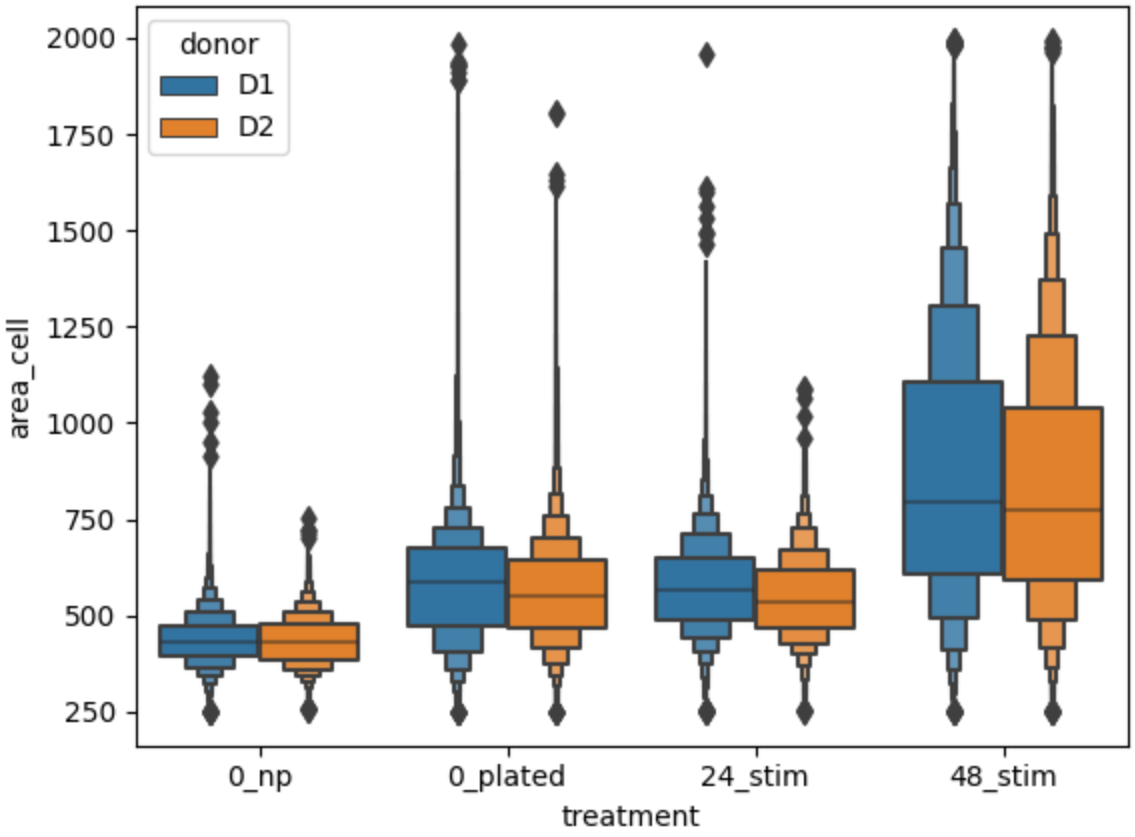
	label	centroid-0_nuc	centroid-1_nuc	bbox-0_nuc	bbox-1_nuc	bbox-2_nuc	bbox-3_nuc	area_nuc	solidity_nuc	eccentricity_nuc	...	pERK_m
0	1	19.985955	3476.112360	12	3465	30	3488	356	0.975342	0.621390	...	93
1	2	46.857494	5033.238329	35	5023	59	5045	407	0.971360	0.425294	...	92
2	3	49.582150	2576.612576	37	2565	64	2589	493	0.970472	0.553273	...	96
3	4	50.683215	2789.174941	40	2777	63	2802	423	0.961364	0.379106	...	94
4	5	52.881481	2551.365432	42	2540	65	2563	405	0.966587	0.220320	...	95
...	...	...	...	...	...	...	...	...	...	...	...	
209567	3654	16739.527108	12331.358434	16730	12322	16751	12342	332	0.956772	0.422338	...	99
209568	3655	16751.907303	1682.120787	16742	1671	16763	1694	356	0.959569	0.500950	...	98
209569	3656	16752.072414	11371.106897	16743	11362	16763	11381	290	0.963455	0.520576	...	99
209570	3657	16758.314189	5230.631757	16748	5222	16769	5241	296	0.951768	0.541446	...	99
209571	3658	16784.271242	21367.924837	16775	21357	16794	21379	306	0.962264	0.505210	...	96

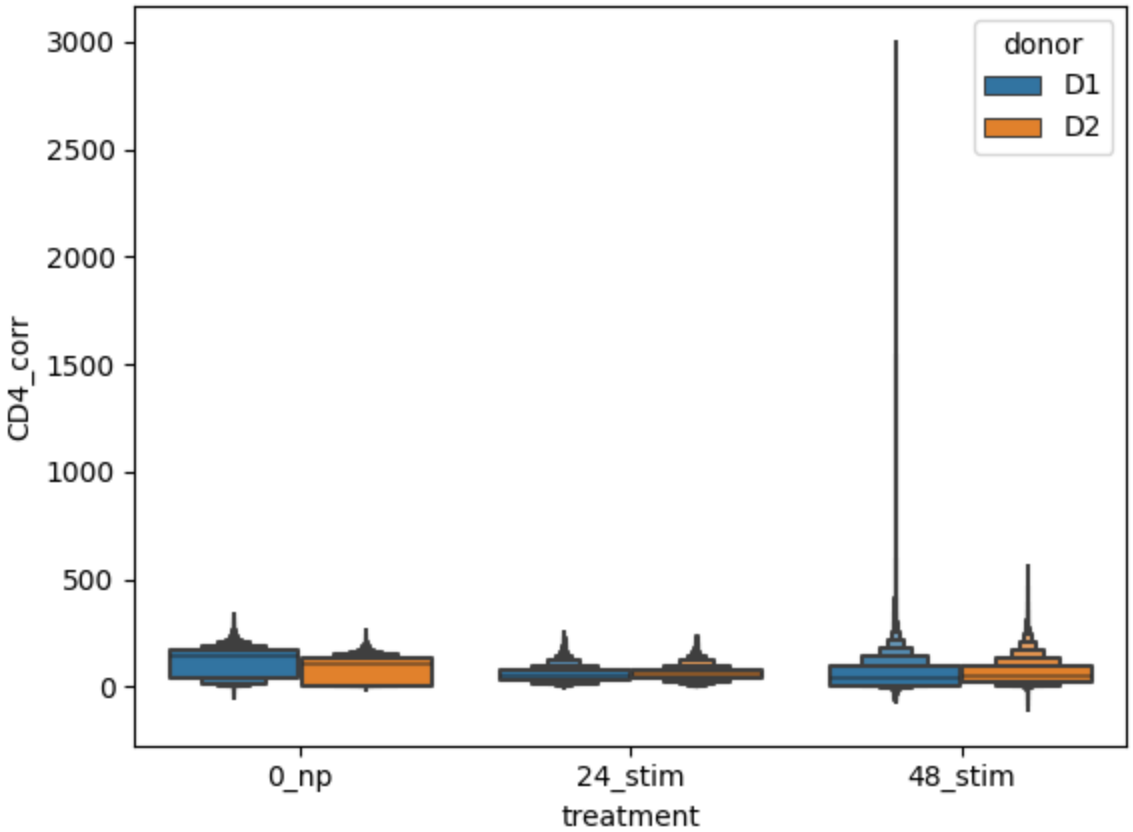
209572 rows × 108 columns

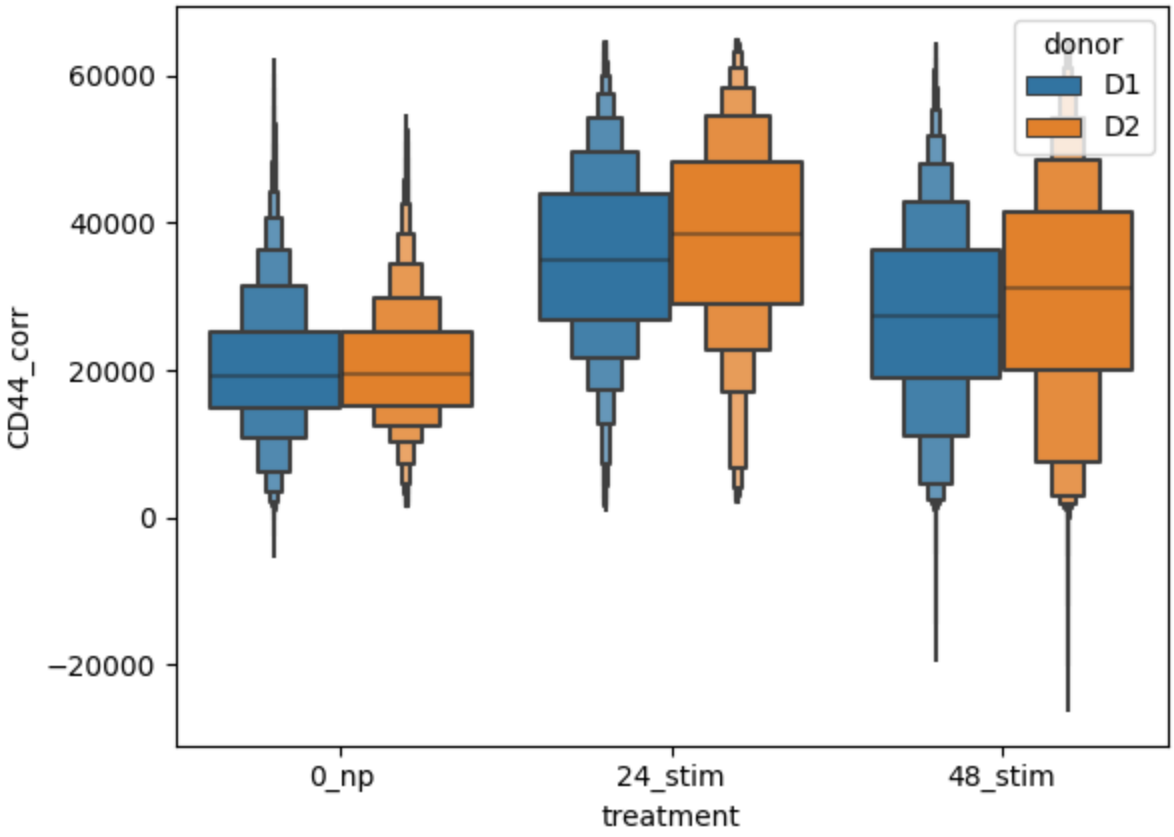

30000
25000
20000
15000
10000
5000
0
count
T3737_9_2_R000
T3737_9_2_R001
T3737_9_2_R002
T3737_9_2_R003
T3737_9_2_R004
T3737_9_2_R005
T3737_9_2_R006
T3737_9_2_R007
T3937_39_R000
T3937_39_R001
T3937_39_R002
T3937_39_R003
T3937_39_R004
T3937_39_R005
T3937_39_R006
T3937_39_R007
exp

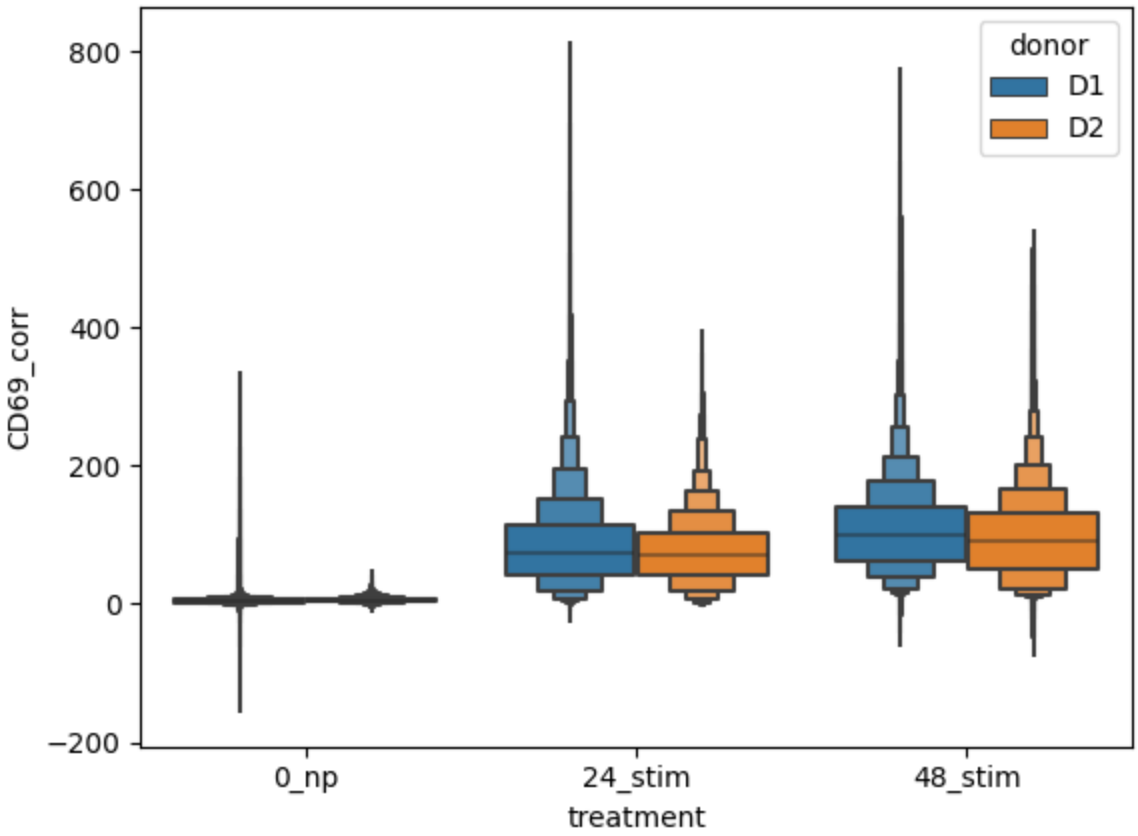

donor
D1
D2
30000
25000
20000
15000
10000
5000
0
cell_count
150
200
density

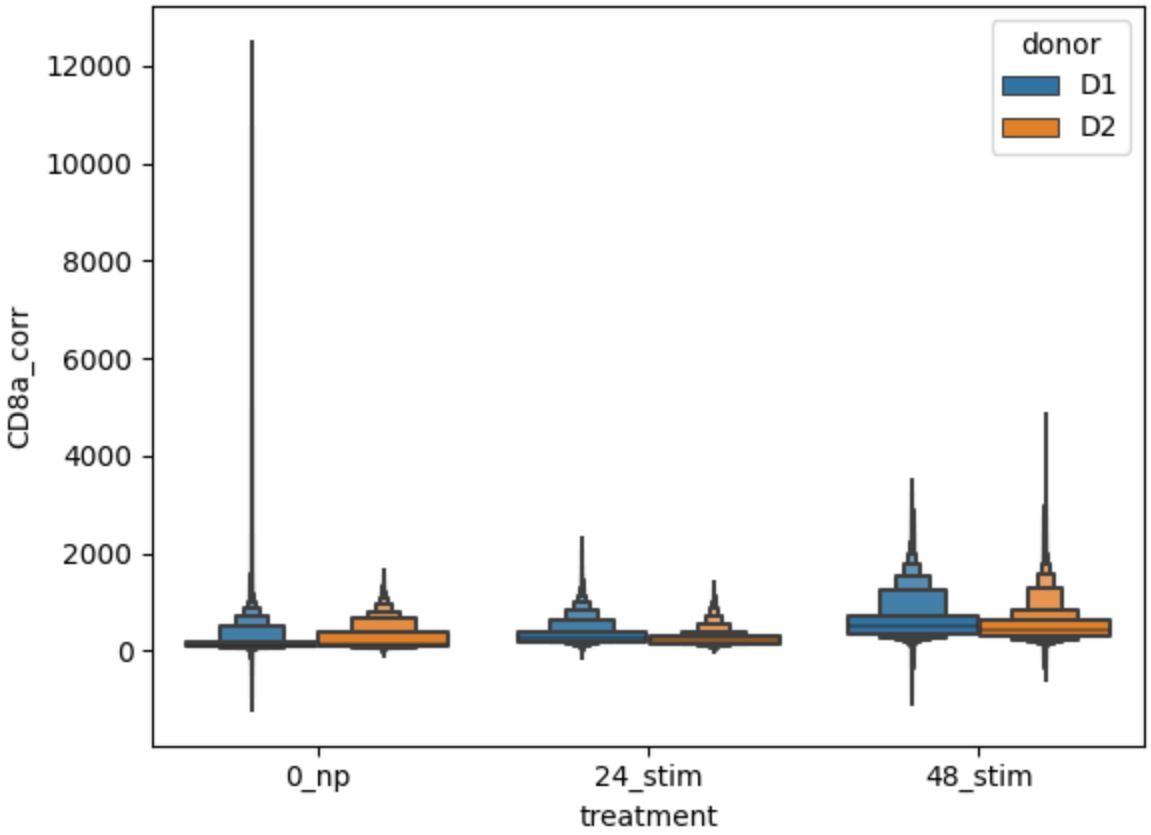
<AxesSubplot: xlabel='treatment', ylabel='area_cell'>

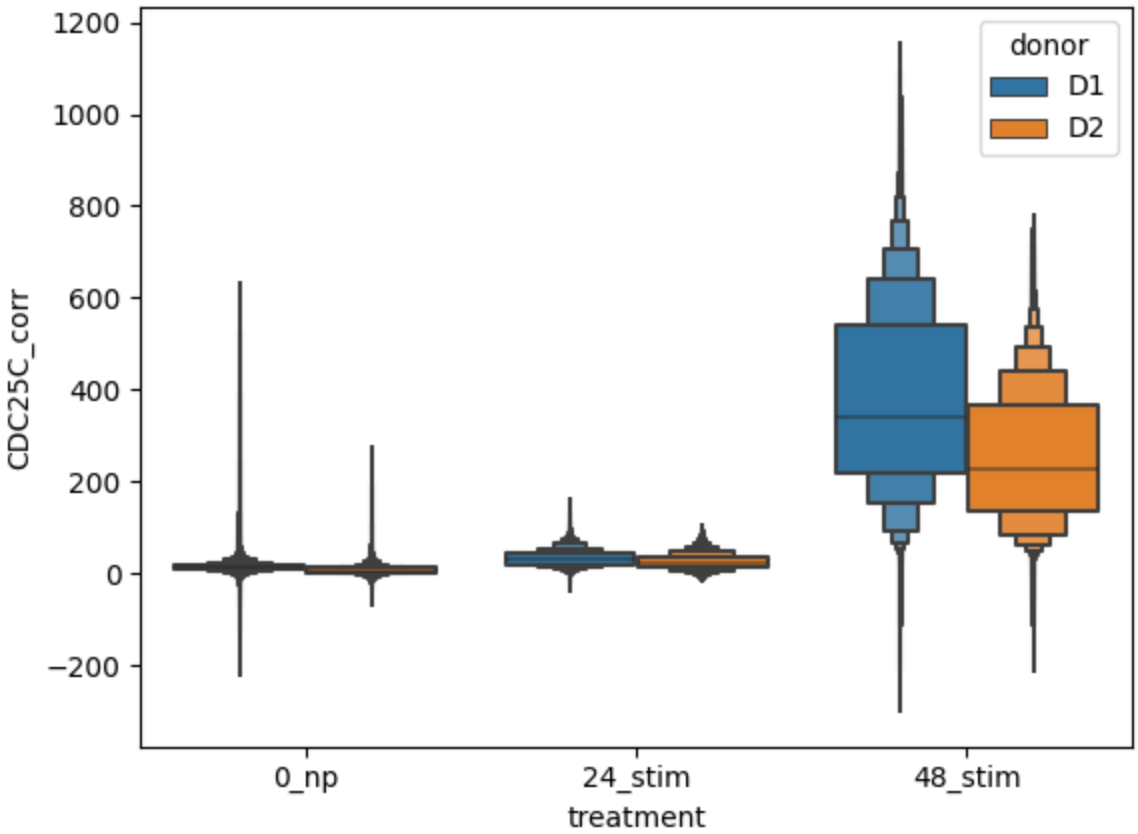


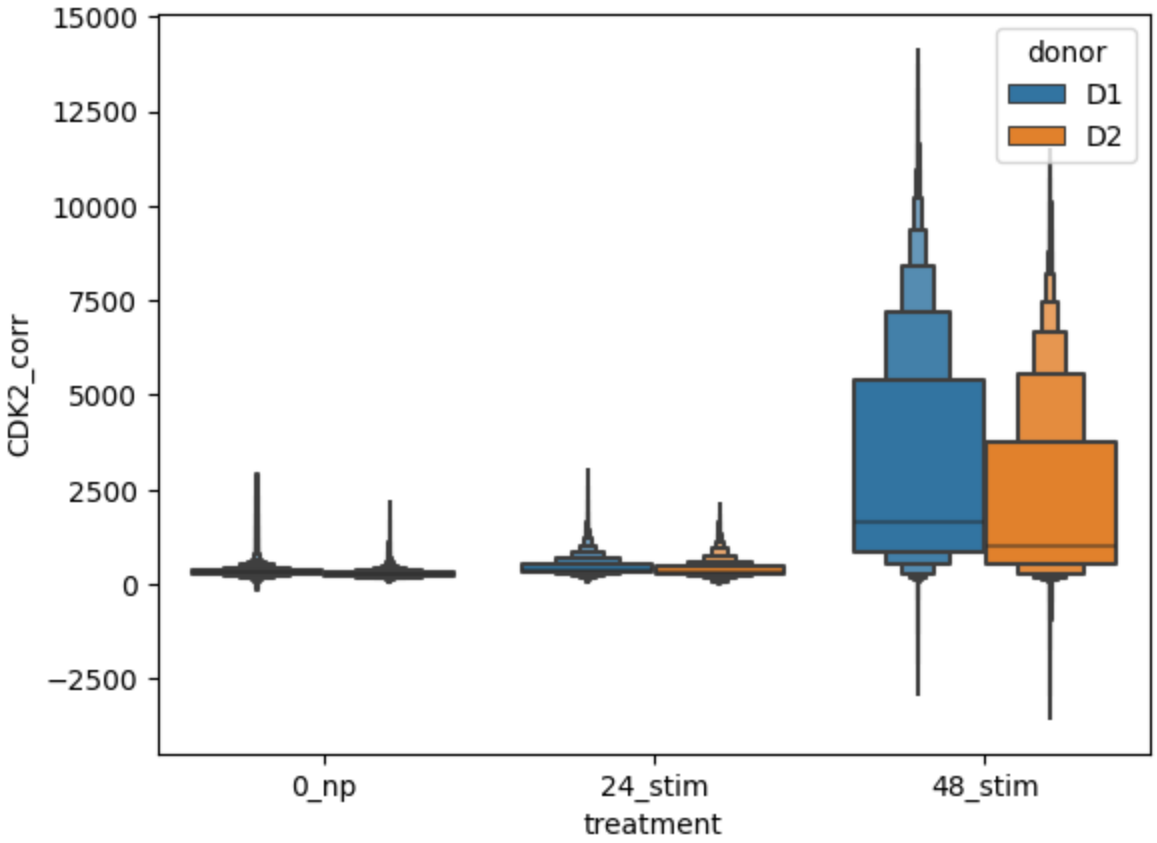


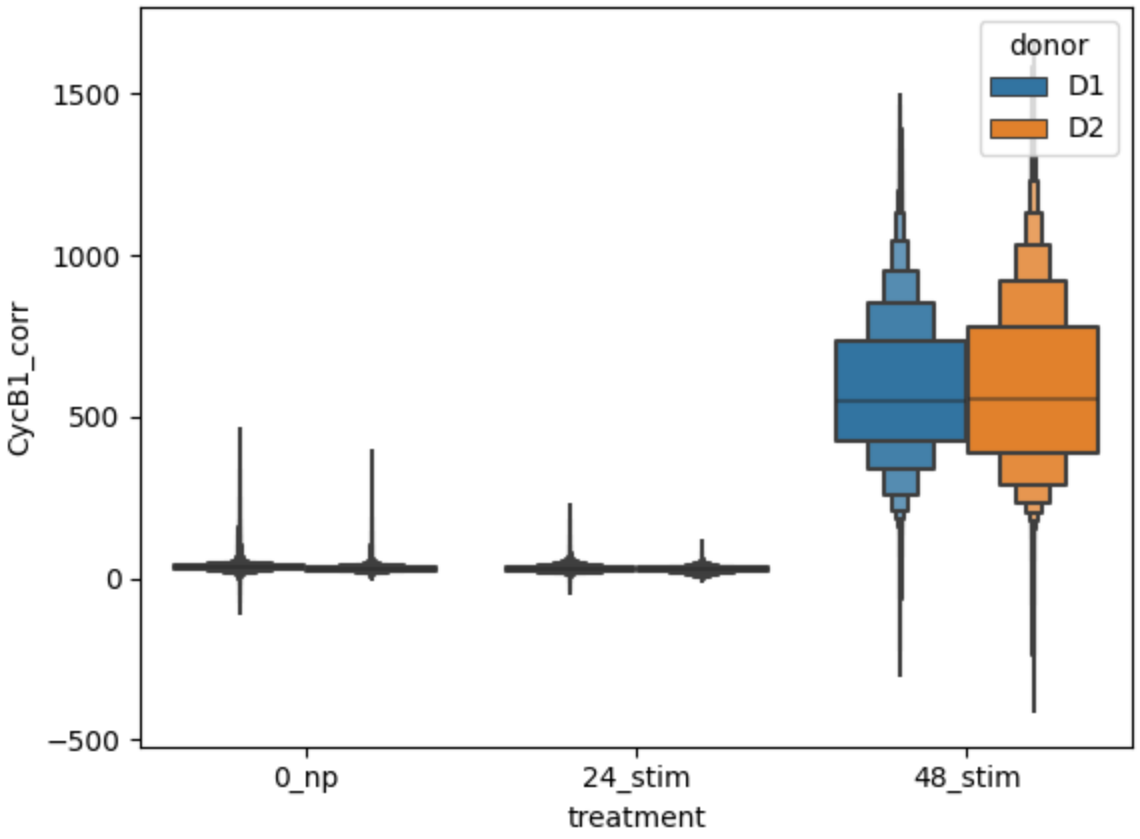

donor
D1
D2
60000
40000
20000
0
−20000
CD44_corr
0_np
24_stim
48_stim
treatment

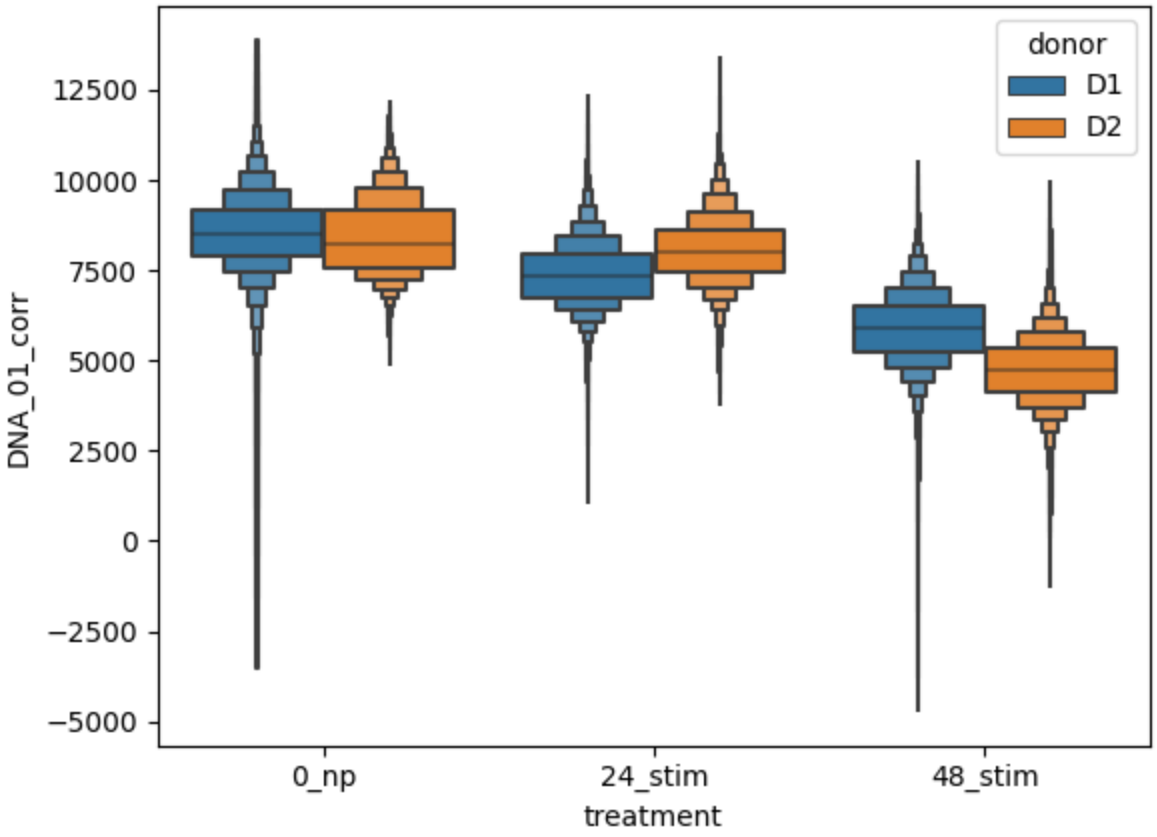

donor
D1
D2
800
600
400
200
0
−200
CD69_corr
0_np
24_stim
48_stim
treatment

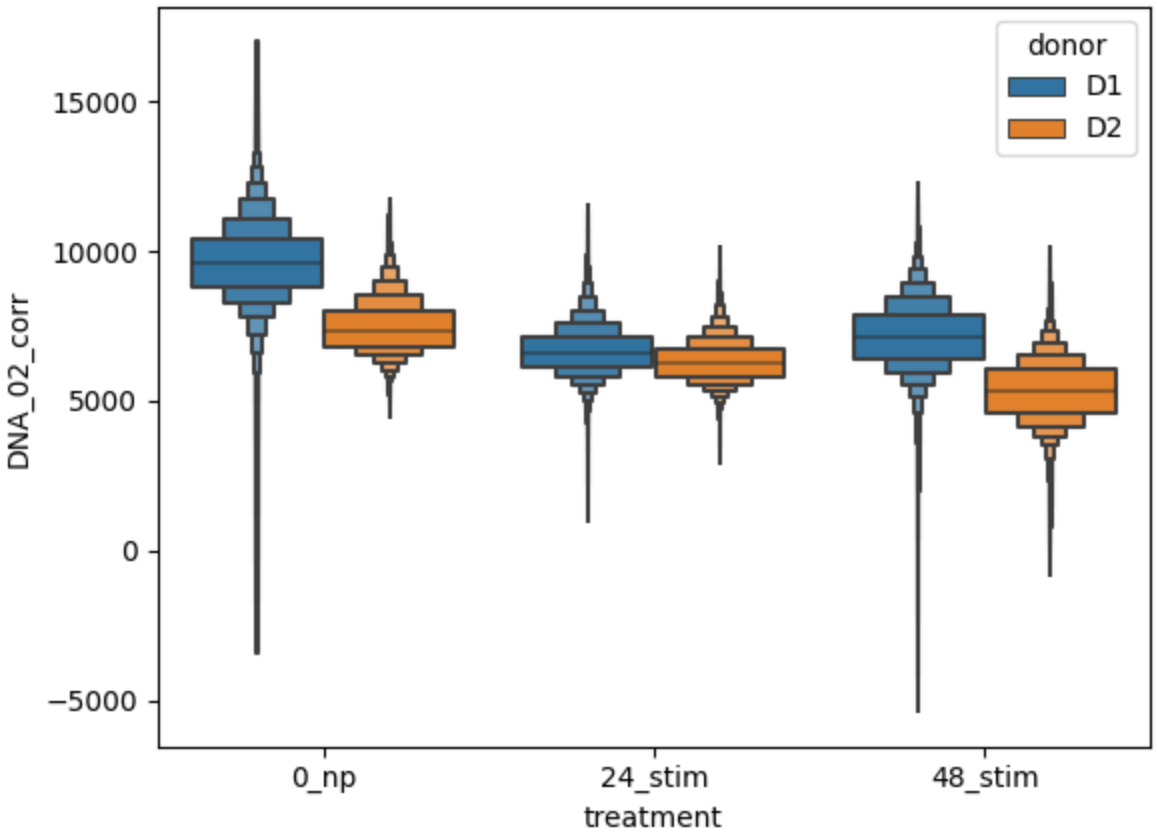

donor
D1
D2
12000
10000
8000
6000
4000
2000
0
CD8a_corr
0_np
24_stim
48_stim
treatment

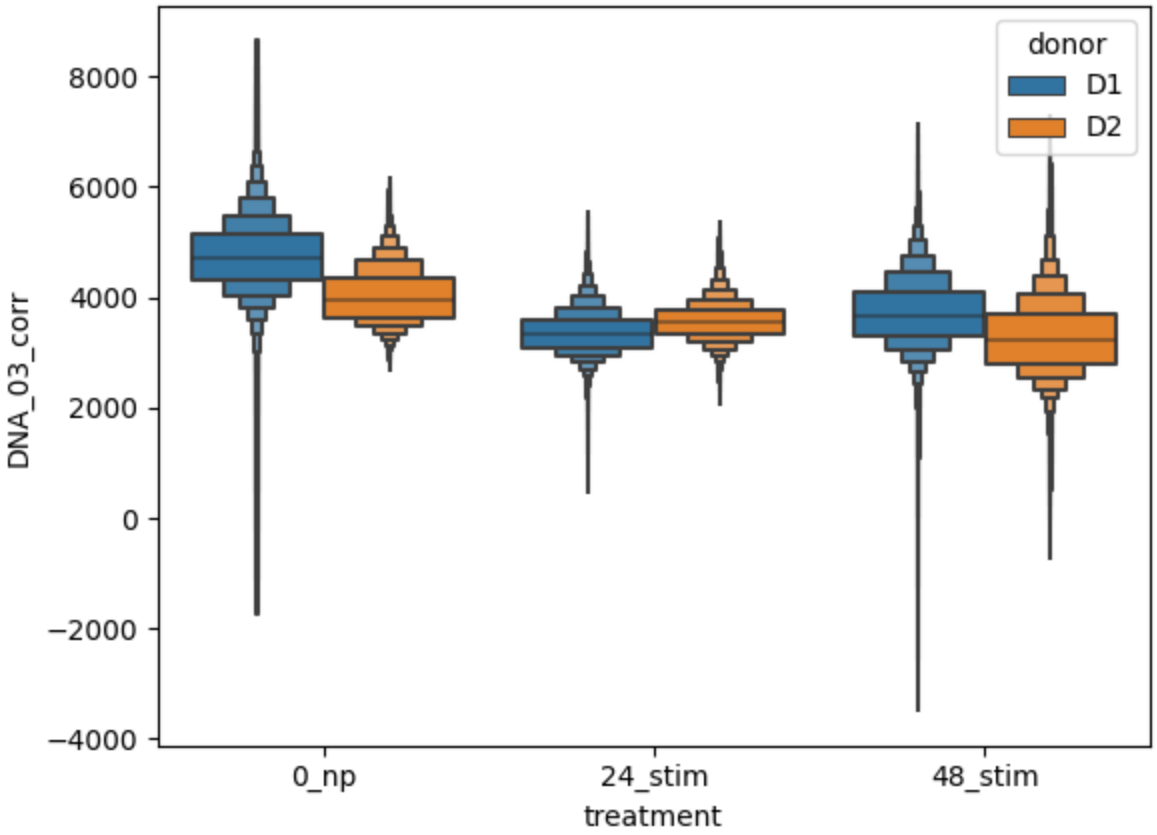

donor
D1
D2
1200
1000
800
600
400
200
0
−200
CDC25C_corr
0_np
24_stim
48_stim
treatment

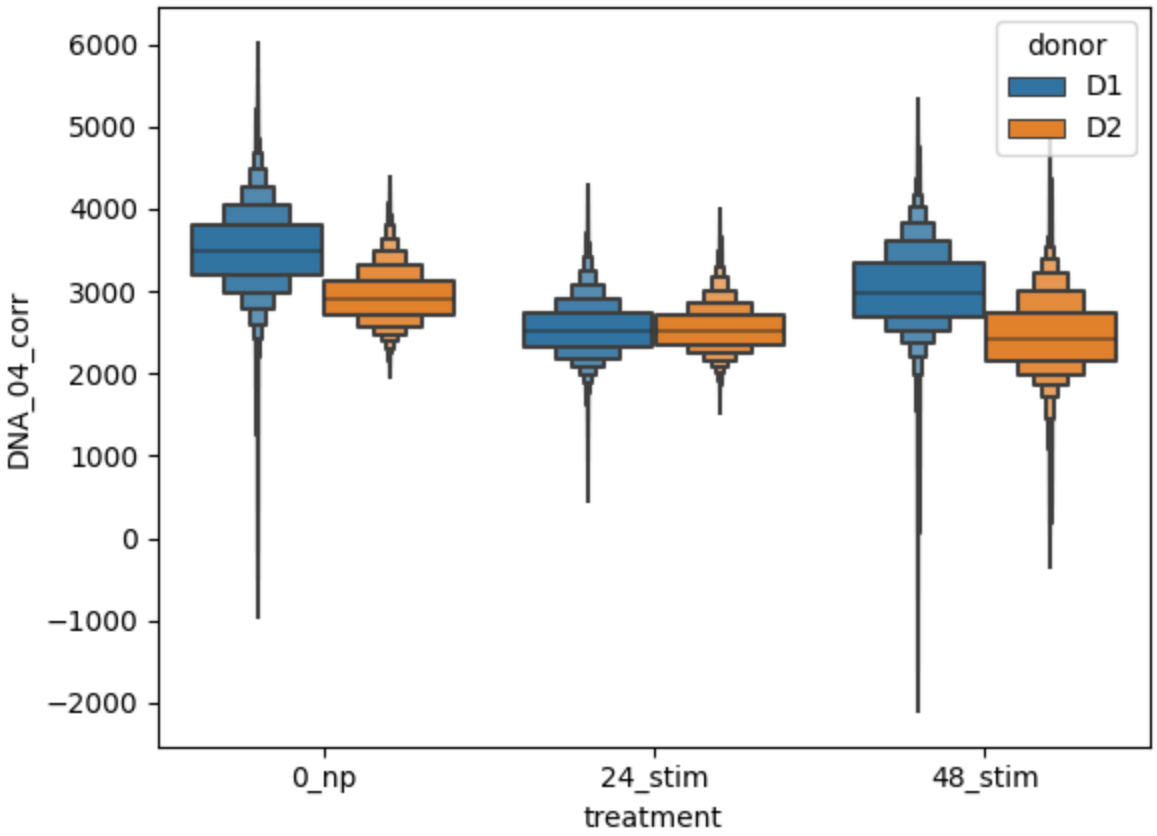

15000
12500
10000
7500
5000
2500
0
−2500
CDK2_corr
donor
D1
D2
0_np
24_stim
48_stim
treatment

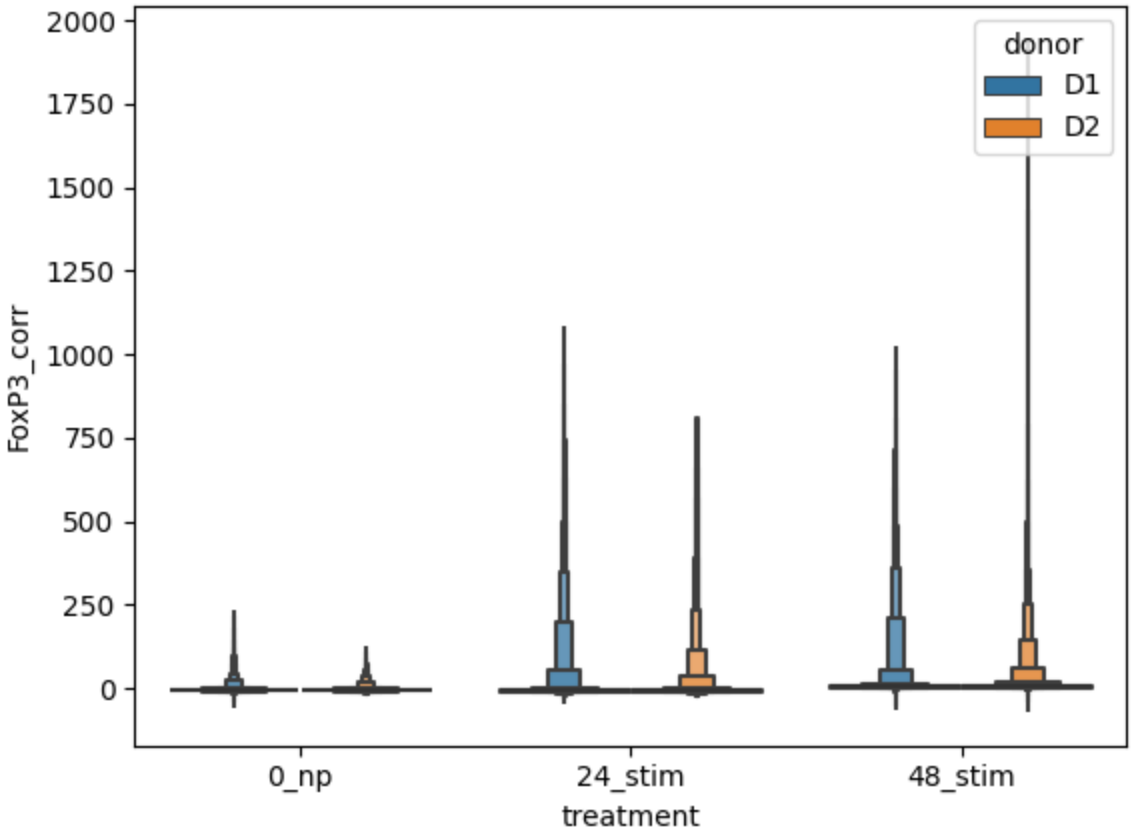

1500
1000
500
0
−500
CycB1_corr
donor
D1
D2
0_np
24_stim
48_stim
treatment

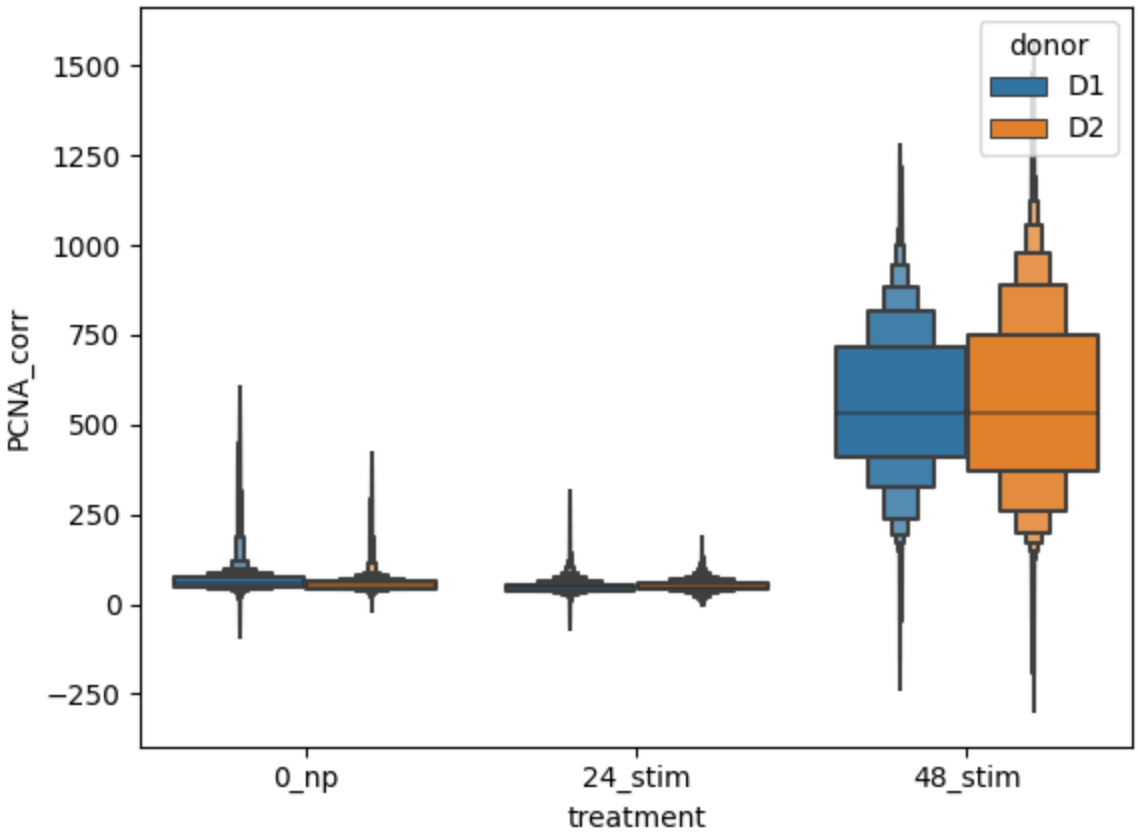

donor
D1
D2
12500
10000
7500
5000
2500
0
−2500
−5000
DNA_01_corr
0_np
24_stim
48_stim
treatment

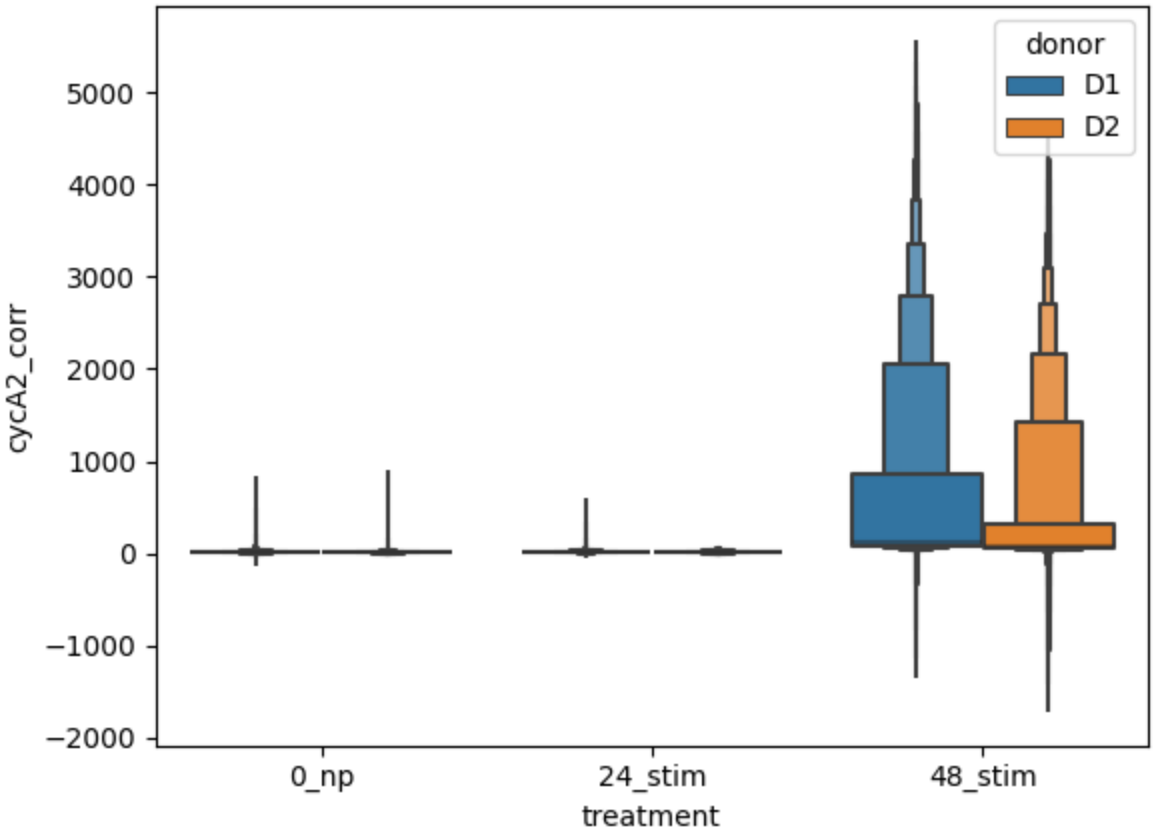

donor
D1
D2
15000
10000
5000
0
−5000
DNA_02_corr
0_np
24_stim
48_stim
treatment

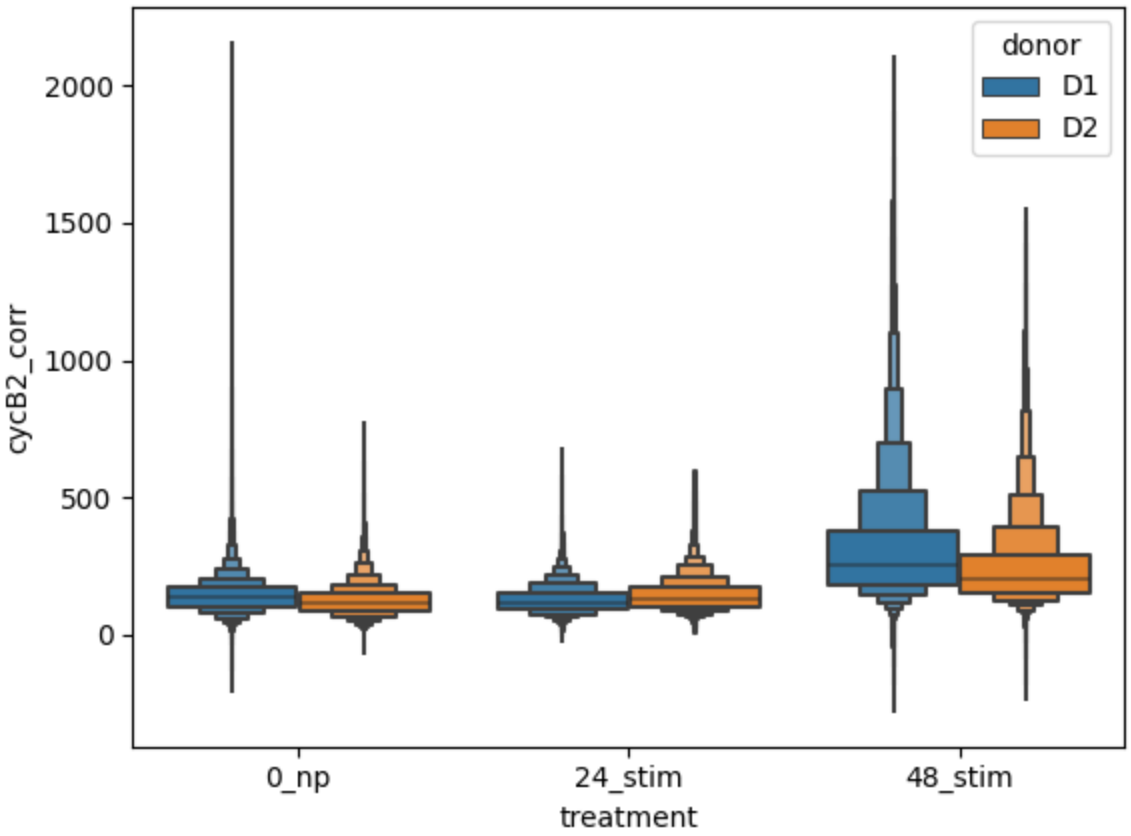

donor
D1
D2
8000
6000
4000
2000
0
−2000
−4000
DNA_03_corr
0_np
24_stim
48_stim
treatment

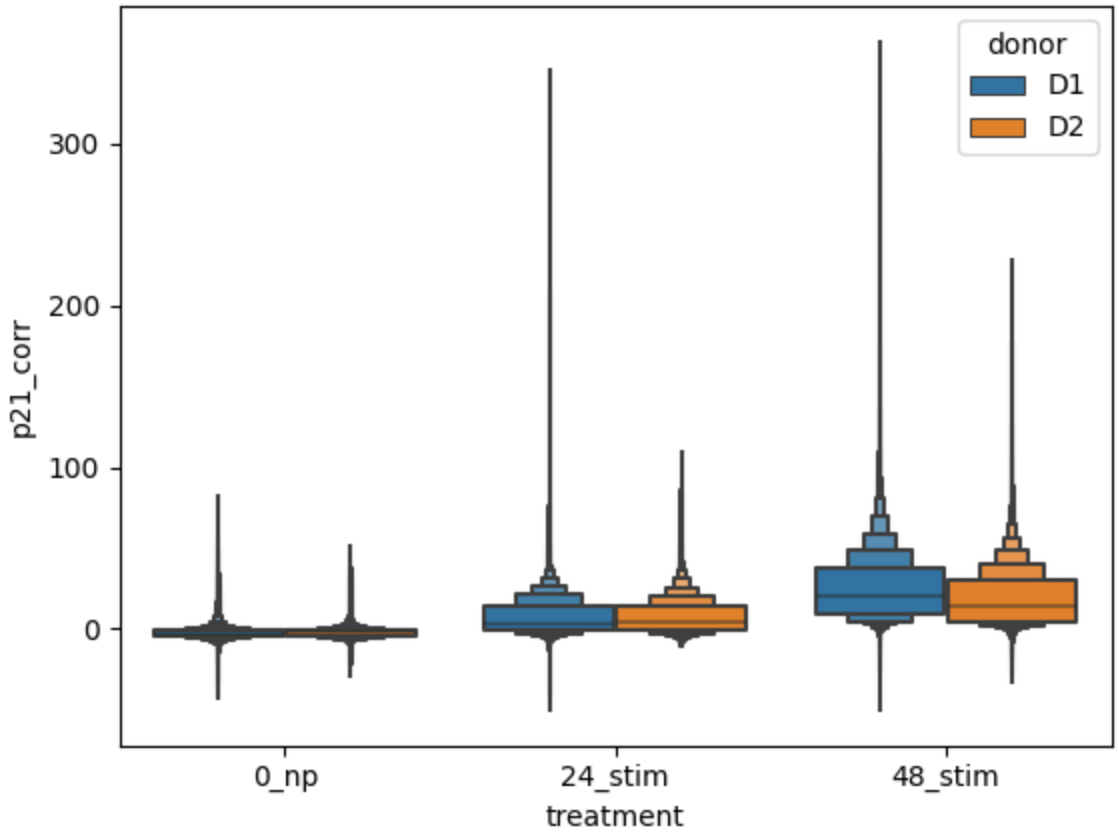

donor
D1
D2
6000
5000
4000
3000
2000
1000
0
−1000
−2000
DNA_04_corr
0_np
24_stim
48_stim
treatment

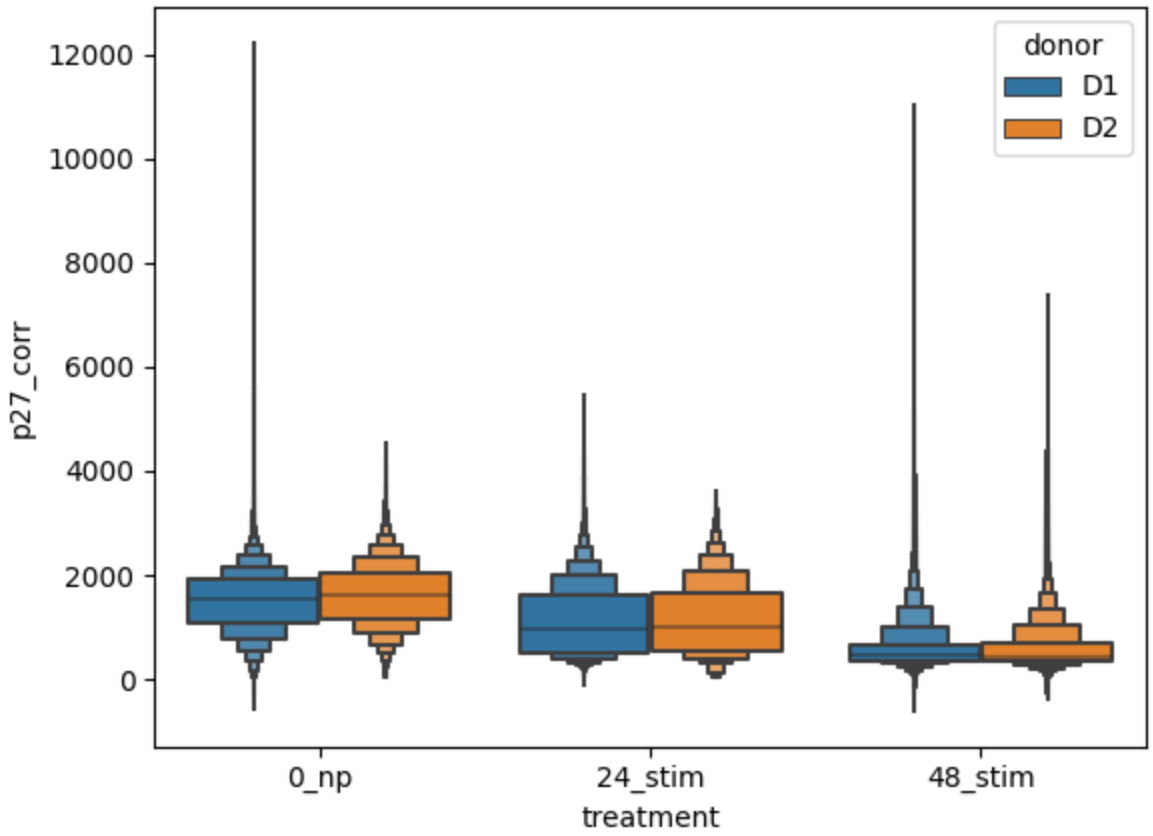

donor
D1
D2
2000
1750
1500
1250
1000
750
500
250
0
FoxP3_corr
0_np
24_stim
48_stim
treatment

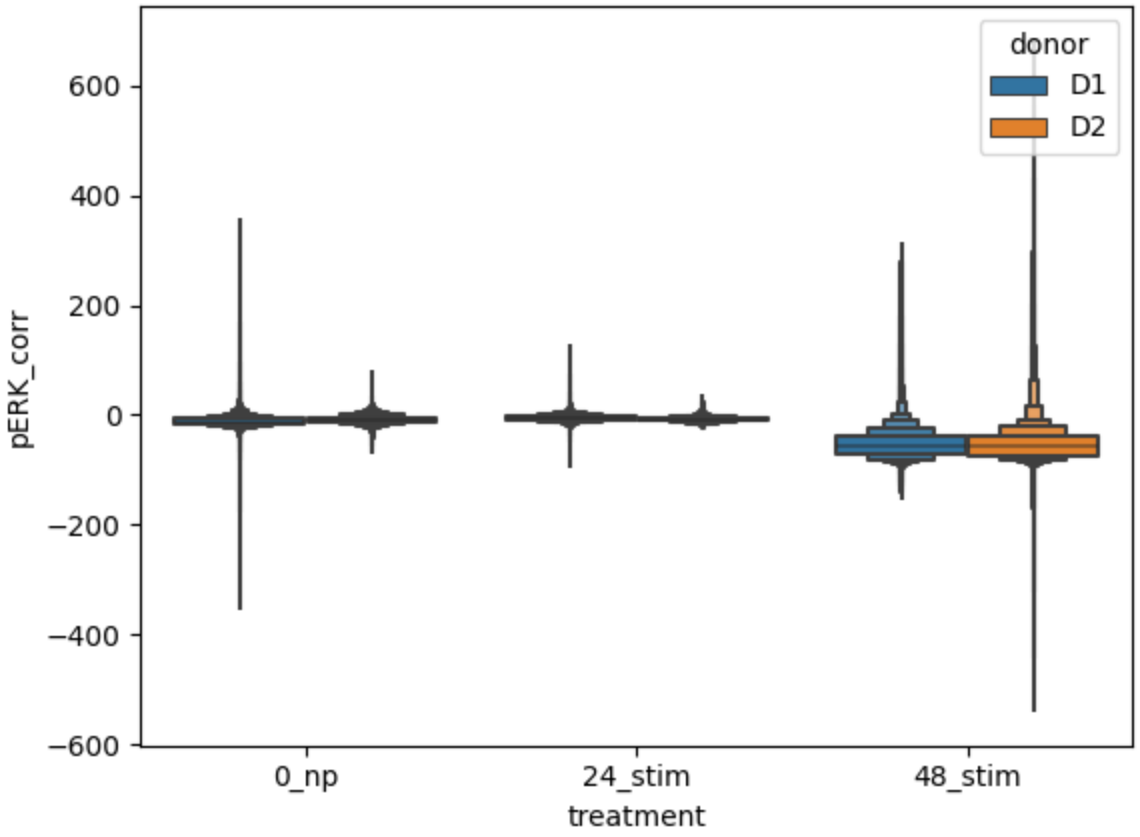

donor
D1
D2
1500
1250
1000
750
500
250
0
−250
PCNA_corr
0_np
24_stim
48_stim
treatment

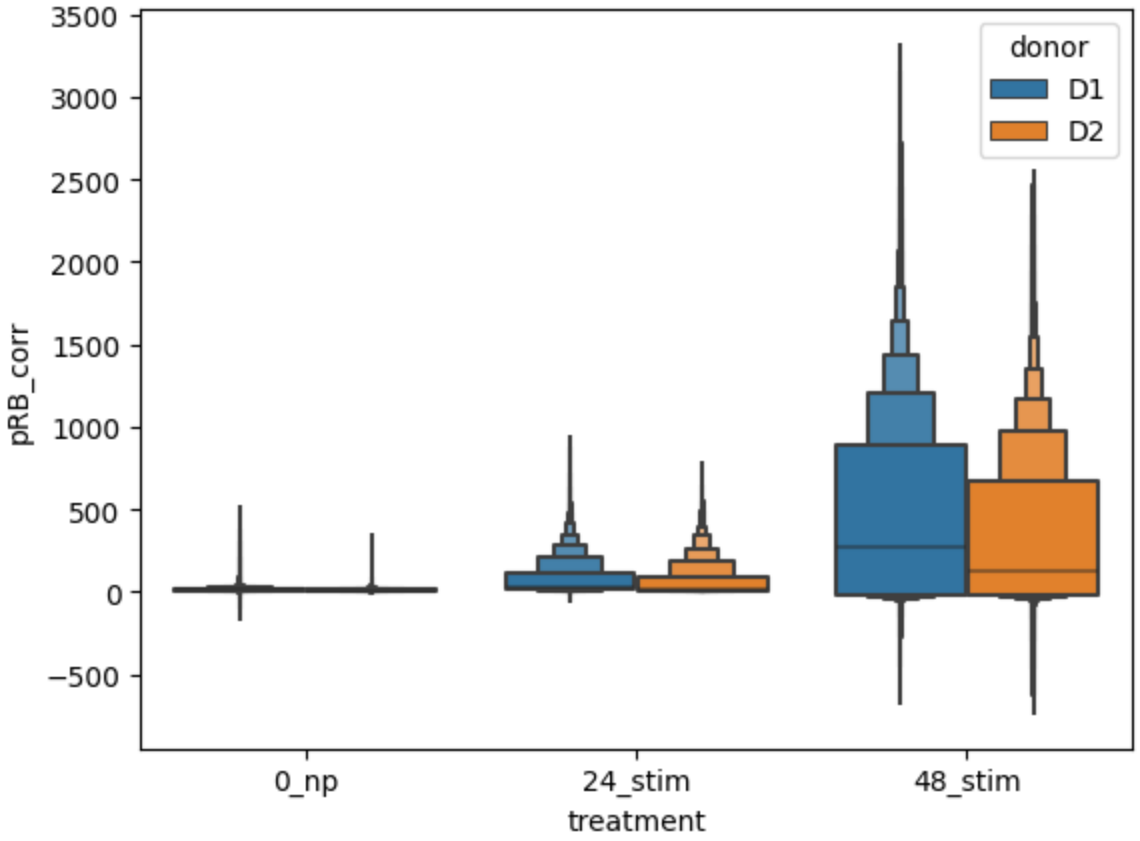

donor
D1
D2
5000
4000
3000
2000
1000
0
−1000
−2000
cycA2_corr
0_np
24_stim
48_stim
treatment

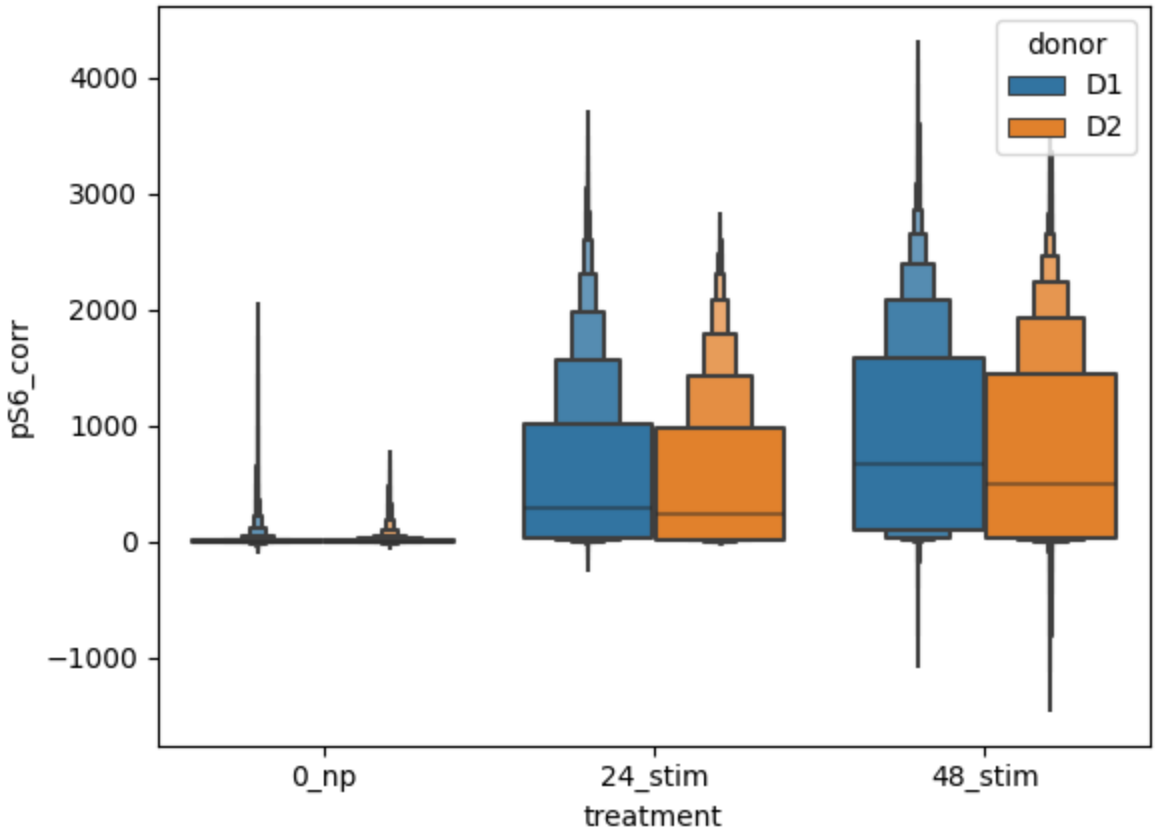

donor
D1
D2
2000
1500
1000
500
0
cycB2_corr
0_np
24_stim
48_stim
treatment


donor
D1
D2
300
200
100
0
p21_corr
0_np
24_stim
48_stim
treatment


donor
D1
D2
12000
10000
8000
6000
4000
2000
0
p27_corr
0_np
24_stim
48_stim
treatment

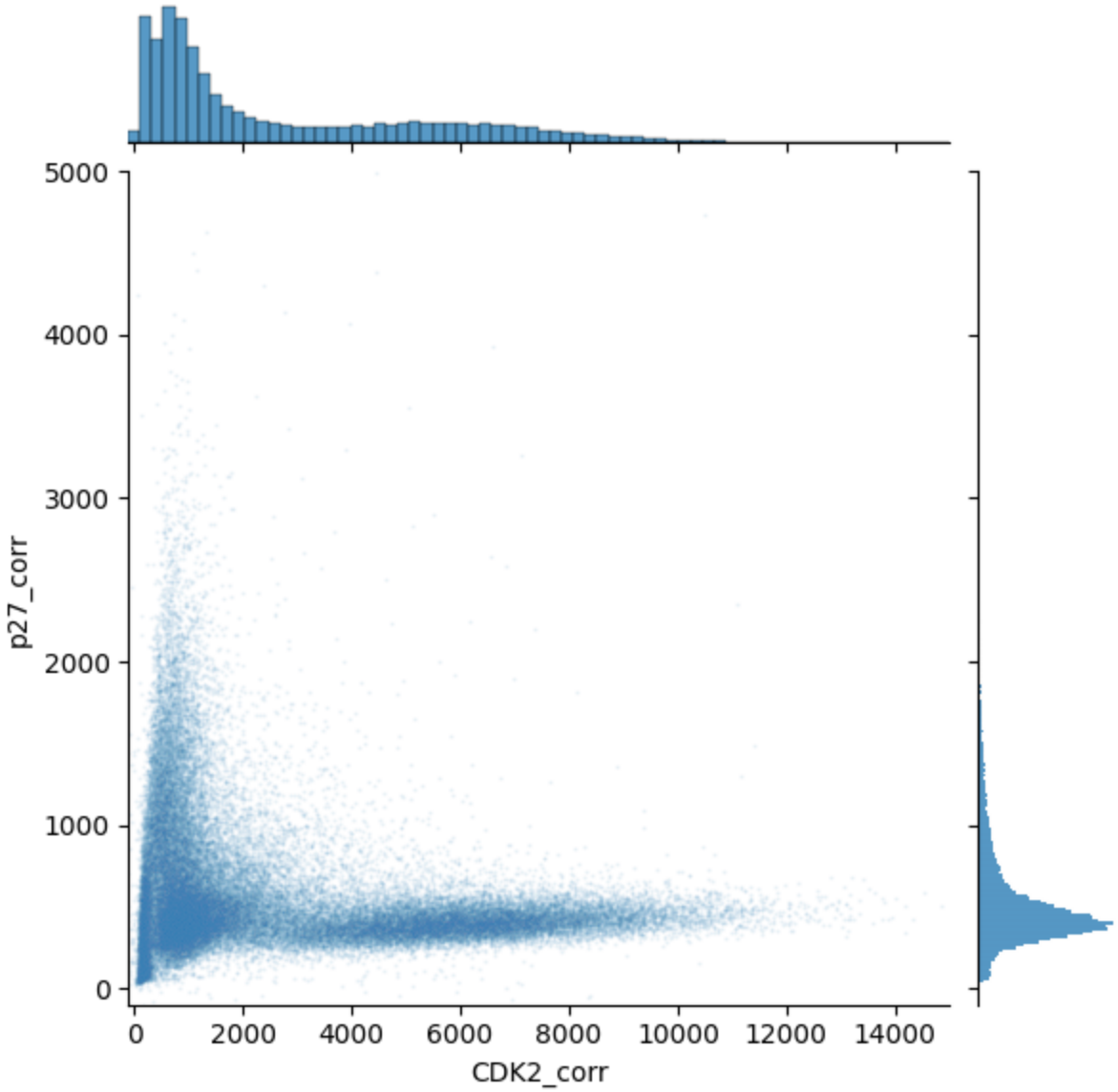

donor
D1
D2
600
400
200
0
−200
−400
−600
pERK_corr
0_np
24_stim
48_stim
treatment


donor
D1
D2
3500
3000
2500
2000
1500
1000
500
0
−500
pRB_corr
0_np
24_stim
48_stim
treatment

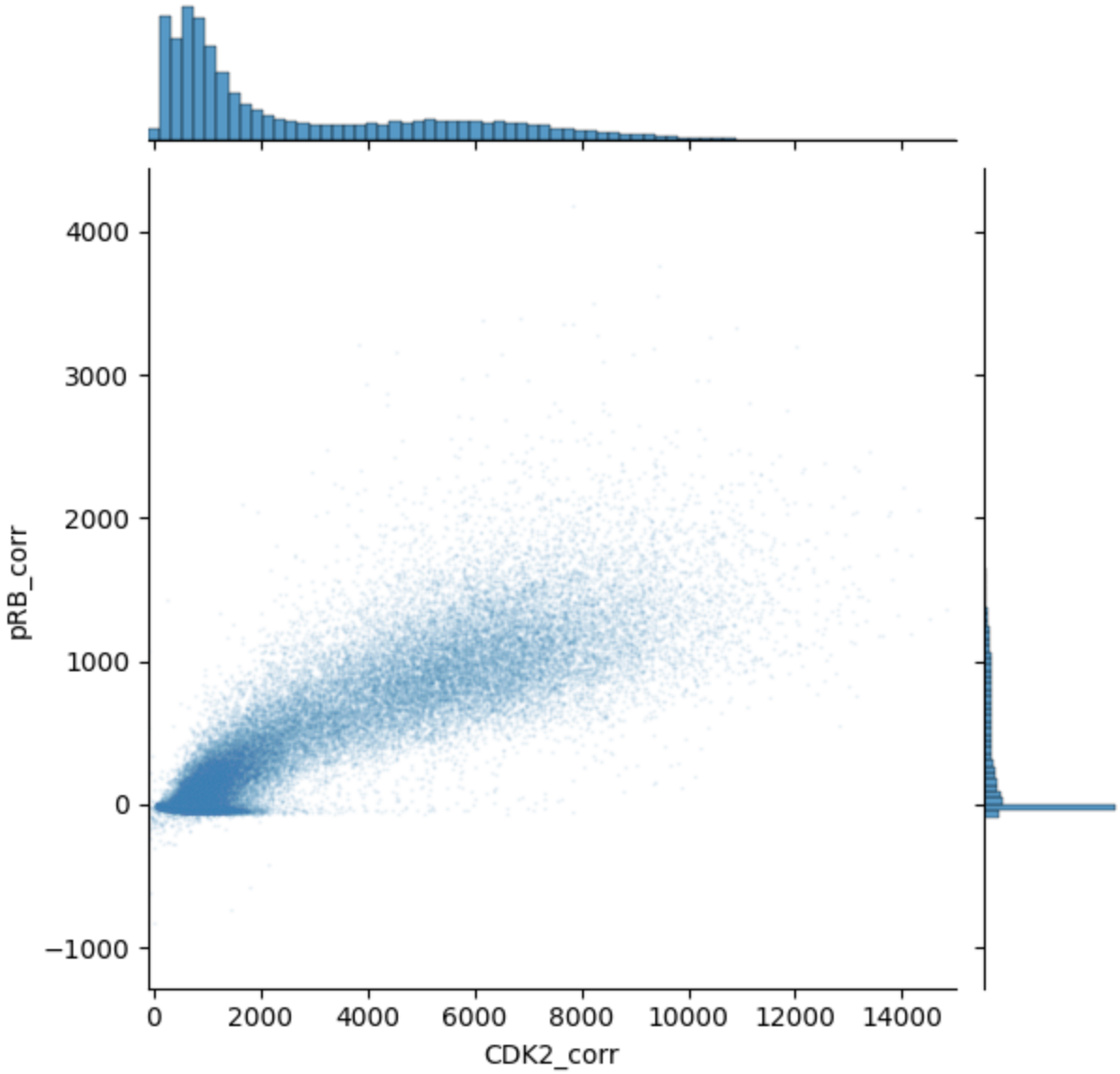



```
[NbConvertApp] Converting notebook 05_quantify_experiment.ipynb to webpdf
[NbConvertApp] Building PDF
[NbConvertApp] PDF successfully created
[NbConvertApp] Writing 476436 bytes to 05_quantify_experiment.pdf
```

```
(-100.0, 5000.0)
```

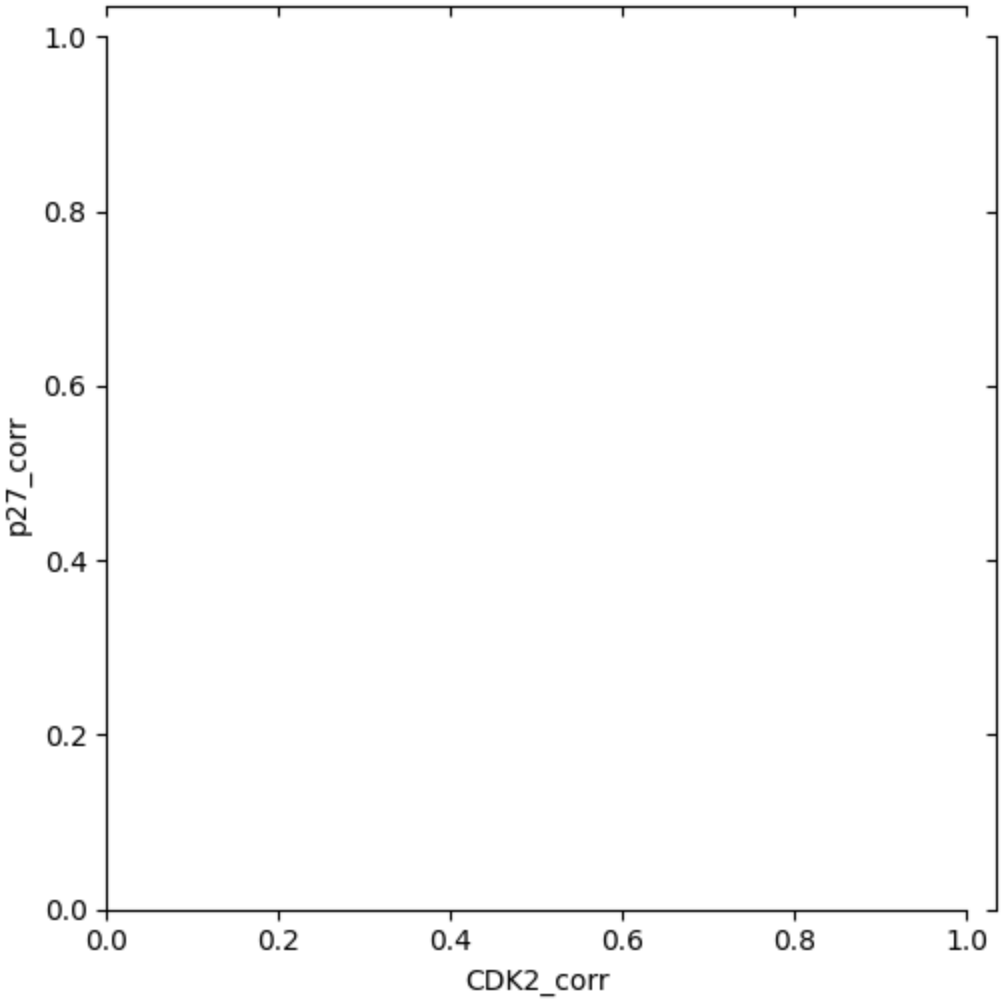

5000
4000
3000
2000
1000
0
p27_corr
0
2000
4000
6000
8000
10000
12000
14000
CDK2_corr

```
(-100.0, 15000.0)
```


4000
3000
2000
1000
0
−1000
pRB_corr
0
2000
4000
6000
8000
10000
12000
14000
CDK2_corr

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
Cell In [112], line 1
----> 1 sns.jointplot(data=df.loc[((df.treatment=='24_stim') | (df.treatment=='0_np') | (df.treatment=='48_
stim')),:],x='CDK2_corr',y='p27_corr',alpha=0.1,s=2,hue='treatment',order=['0_np','24_stim','48_stim'])
      2 plt.xlim([-100,15000])
      3 plt.ylim([-100,5000])

File c:\Users\Stallab\.conda\envs\napari-env\lib\site-packages\seaborn\axisgrid.py:2255, in jointplot(data,
 x, y, hue, kind, height, ratio, space, dropna, xlim, ylim, color, palette, hue_order, hue_norm, marginal_t
icks, joint_kws, marginal_kws, **kwargs)
   2252 if kind.startswith("scatter"):
   2254     joint_kws.setdefault("color", color)
-> 2255     grid.plot_joint(scatterplot, **joint_kws)
   2257     if grid.hue is None:
   2258         marg_func = histplot

File c:\Users\Stallab\.conda\envs\napari-env\lib\site-packages\seaborn\axisgrid.py:1826, in JointGrid.plot_
joint(self, func, **kwargs)
   1823     self._inject_kwargs(func, kwargs, self._hue_params)
   1825 if str(func.__module__).startswith("seaborn"):
-> 1826     func(x=self.x, y=self.y, **kwargs)
   1827 else:
   1828     func(self.x, self.y, **kwargs)

File c:\Users\Stallab\.conda\envs\napari-env\lib\site-packages\seaborn\relational.py:761, in scatterplot(da
ta, x, y, hue, size, style, palette, hue_order, hue_norm, sizes, size_order, size_norm, markers, style_orde
r, legend, ax, **kwargs)
    758 color = kwargs.pop("color", None)
    759 kwargs["color"] = _default_color(ax.scatter, hue, color, kwargs)
--> 761 p.plot(ax, kwargs)
    763 return ax

File c:\Users\Stallab\.conda\envs\napari-env\lib\site-packages\seaborn\relational.py:573, in _ScatterPlotte
r.plot(self, ax, kws)
    570     kws.setdefault("edgecolor", "w")
    572 # Draw the scatter plot
--> 573 points = ax.scatter(x=x, y=y, **kws)
    575 # Apply the mapping from semantic variables to artist attributes
    577 if "hue" in self.variables:

File c:\Users\Stallab\.conda\envs\napari-env\lib\site-packages\matplotlib\__init__.py:1423, in _preprocess_
data.<locals>.inner(ax, data, *args, **kwargs)
   1420 @functools.wraps(func)
   1421 def inner(ax, *args, data=None, **kwargs):
   1422     if data is None:
-> 1423         return func(ax, *map(sanitize_sequence, args), **kwargs)
   1425     bound = new_sig.bind(ax, *args, **kwargs)
   1426     auto_label = (bound.arguments.get(label_namer)
   1427                   or bound.kwargs.get(label_namer))

File c:\Users\Stallab\.conda\envs\napari-env\lib\site-packages\matplotlib\axes\_axes.py:4634, in Axes.scatt
er(self, x, y, s, c, marker, cmap, norm, vmin, vmax, alpha, linewidths, edgecolors, plotnonfinite, **kwarg
s)
   4630         keys_str = ", ".join(f"'{k}'" for k in extra_keys)
   4631         _api.warn_external(
   4632             "No data for colormapping provided via 'c'. "
   4633             f"Parameters {keys_str} will be ignored")
-> 4634 collection._internal_update(kwargs)
   4636 # Classic mode only:
   4637 # ensure there are margins to allow for the
```

```
   4638 # finite size of the symbols.  In v2.x, margins
   4639 # are present by default, so we disable this
   4640 # scatter-specific override.
   4641 if mpl.rcParams['_internal.classic_mode']:

File c:\Users\Stallab\.conda\envs\napari-env\lib\site-packages\matplotlib\artist.py:1186, in Artist._intern
al_update(self, kwargs)
   1179 def _internal_update(self, kwargs):
   1180     """
   1181     Update artist properties without prenormalizing them, but generating
   1182     errors as if calling `set`.
   1183
   1184     The lack of prenormalization is to maintain backcompatibility.
   1185     """
-> 1186     return self._update_props(
   1187         kwargs, "{cls.__name__}.set() got an unexpected keyword argument "
   1188         "{prop_name!r}")

File c:\Users\Stallab\.conda\envs\napari-env\lib\site-packages\matplotlib\artist.py:1160, in Artist._update
_props(self, props, errfmt)
   1158             func = getattr(self, f"set_{k}", None)
   1159             if not callable(func):
-> 1160                 raise AttributeError(
   1161                     errfmt.format(cls=type(self), prop_name=k))
   1162             ret.append(func(v))
   1163 if ret:

AttributeError: PathCollection.set() got an unexpected keyword argument 'order'
```


1.0
0.8
0.6
0.4
0.2
0.0
p27_corr
0.0
0.2
0.4
0.6
0.8
1.0
CDK2_corr