

Integrative data modeling from lung and lymphatic cancer predicts functional roles for miR-34a and miR-16 in cell fate regulation

Supplementary file S1

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Code of the model in .ginml file format used for the GINsim 3.0.0b software.

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1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE gxl SYSTEM "http://ginsim.org/GINML_2.2.dtd">
3 <gxl xmlns:xlink="http://www.w3.org/1999/xlink">
4   <graph class="regulatory" id="NEW-SYNERGY-MODEL-FORMAT-JUNE-2019" nodeorder="DNA_Damage ATM
      Mdm2 p53 Wip1 p53_A p53_K miR_34a miR_16 p21 p53INP1 c_Myc Cdc25A CDK46_CycD CDK2_CycE
      RB E2F1 Sirt_1 HDAC1 BMI1 PUMA BCL2 BAX Caspase3 Poliferation Senescence Apoptosis">
5     <nodestyle background="#ffffff" foreground="#000000" text="#000000" shape="RECTANGLE"
        width="45" height="25" properties="intermediate:#ffff00 active:#ffc800"/>
6     <nodestyle name="Node style" background="#ff0000" foreground="#333333" width="90" height="
        40"/>
7     <nodestyle name="Node style 2" background="#ffffff" foreground="#000000" shape="RECTANGLE"
        width="60" height="30"/>
8     <nodestyle name="Node style 3" background="#ffff00" foreground="#000000" text="#000000"
        width="70" height="30"/>
9     <nodestyle name="Node style 4" background="#ffff00" foreground="#000000" text="#000000"
        width="70" height="30"/>
10    <nodestyle name="Node style 5" background="#ffffff" shape="RECTANGLE" width="80" height="
        30"/>
11    <nodestyle name="Node style 6" shape="RECTANGLE" width="80" height="30"/>
12    <nodestyle name="Node style 7" background="#33ff33" shape="RECTANGLE" width="80" height="
        30"/>
13    <edgestyle color="#000000" pattern="SIMPLE" line_width="2" properties="positive:#00c800
        negative:#c80000 dual:#0000c8"/>
14    <edgestyle name="Edge style" pattern="DASH"/>
15    <edgestyle name="Edge style 2" pattern="DASH"/>
16    <node id="DNA_Damage" maxvalue="1" input="true">
17      <nodevisualsetting x="139" y="109" style="Node style"/>
18    </node>
19    <node id="ATM" maxvalue="1">
20      <value val="1">
21        <exp str="DNA_Damage & (!HDAC1 | !Wip1 | E2F1)"/>
22      </value>
23      <nodevisualsetting x="310" y="52" style="Node style 2"/>
24    </node>
25    <node id="Mdm2" maxvalue="1">
26      <value val="1">
27        <exp str="(!Wip1 | p53) & !ATM"/>
28      </value>
29      <nodevisualsetting x="530" y="273" style="Node style 2"/>
30    </node>
31    <node id="p53" maxvalue="1">
32      <value val="1">
33        <exp str="(ATM | !Sirt_1) & !Mdm2"/>
34      </value>
35      <nodevisualsetting x="317" y="274" style="Node style 2"/>
36    </node>
37    <node id="Wip1" maxvalue="1">
38      <value val="1">
39        <exp str="p53_A & !miR_16"/>
40      </value>
41      <nodevisualsetting x="879" y="42" style="Node style 2"/>
42    </node>
43    <node id="p53_A" maxvalue="1">
44      <value val="1">
45        <exp str="!Sirt_1 & !p53_K & (p53:1 | !p53INP1)"/>
46      </value>
47      <nodevisualsetting x="319" y="366" style="Node style 2"/>
48    </node>

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49 <node id="p53_K" maxvalue="1">
50   <value val="1">
51     <exp str="!p53_A &amp; (!Sirt_1 | !Wip1) &amp; p53"/>
52   </value>
53   <nodevisualsetting x="528" y="366" style="Node style 2"/>
54 </node>
55 <node id="miR_34a" maxvalue="1">
56   <value val="1">
57     <exp str="ATM | p53"/>
58   </value>
59   <nodevisualsetting x="328" y="128" style="Node style 3"/>
60 </node>
61 <node id="miR_16" maxvalue="1">
62   <value val="1">
63     <exp str="(ATM | p53) &amp; !HDAC1 &amp; !c_Myc"/>
64   </value>
65   <nodevisualsetting x="699" y="120" style="Node style 4"/>
66 </node>
67 <node id="p21" maxvalue="1">
68   <value val="1">
69     <exp str="p53_A | ((!HDAC1 | !c_Myc | !BMI1) &amp; !Caspase3)"/>
70   </value>
71   <nodevisualsetting x="710" y="265" style="Node style 2"/>
72 </node>
73 <node id="p53INP1" maxvalue="1">
74   <value val="1">
75     <exp str="p53_K | p53_A"/>
76   </value>
77   <nodevisualsetting x="368" y="424" style="Node style 2"/>
78 </node>
79 <node id="c_Myc" maxvalue="1">
80   <value val="1">
81     <exp str="(E2F1 | !miR_34a) &amp; !RB &amp; !p21"/>
82   </value>
83   <nodevisualsetting x="529" y="170" style="Node style 2"/>
84 </node>
85 <node id="Cdc25A" maxvalue="1">
86   <value val="1">
87     <exp str="!ATM &amp; !miR_34a"/>
88   </value>
89   <nodevisualsetting x="529" y="466" style="Node style 2"/>
90 </node>
91 <node id="CDK46_CycD" maxvalue="1">
92   <value val="1">
93     <exp str="Cdc25A &amp; !miR_34a &amp; !p21 &amp; !miR_16"/>
94   </value>
95   <nodevisualsetting x="397" y="541" style="Node style 5"/>
96 </node>
97 <node id="CDK2_CycE" maxvalue="1">
98   <value val="1">
99     <exp str="Cdc25A &amp; E2F1 &amp; !miR_34a &amp; !p21 &amp; !miR_16"/>
100   </value>
101   <nodevisualsetting x="607" y="541" style="Node style 5"/>
102 </node>
103 <node id="RB" maxvalue="1">
104   <value val="1">
105     <exp str="!CDK46_CycD &amp; !CDK2_CycE"/>
106   </value>
107   <nodevisualsetting x="323" y="466" style="Node style 2"/>
108 </node>
109 <node id="E2F1" maxvalue="1">
110   <value val="1">

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111     <exp str="(!RB &amp; ((Cdc25A &amp; ATM) | !Sirt_1 | !miR_34a)) | c_Myc"/>
112   </value>
113   <nodevisualsetting x="721" y="463" style="Node style 2"/>
114 </node>
115 <node id="Sirt_1" maxvalue="1">
116   <value val="1">
117     <exp str="E2F1 &amp; !(miR_34a &amp; HDAC1)"/>
118   </value>
119   <nodevisualsetting x="883" y="460" style="Node style 2"/>
120 </node>
121 <node id="HDAC1" maxvalue="1">
122   <value val="1">
123     <exp str="(!miR_34a &amp; !Sirt_1) | !DNA_Damage"/>
124   </value>
125   <nodevisualsetting x="529" y="46" style="Node style 2"/>
126 </node>
127 <node id="BMI1" maxvalue="1">
128   <value val="1">
129     <exp str="!miR_16 &amp; (E2F1 | c_Myc)"/>
130   </value>
131   <nodevisualsetting x="880" y="163" style="Node style 2"/>
132 </node>
133 <node id="PUMA" maxvalue="1">
134   <value val="1">
135     <exp str="p53_K"/>
136   </value>
137   <nodevisualsetting x="710" y="364" style="Node style 2"/>
138 </node>
139 <node id="BCL2" maxvalue="1">
140   <value val="1">
141     <exp str="!PUMA &amp; !miR_34a &amp; !miR_16"/>
142   </value>
143   <nodevisualsetting x="879" y="263" style="Node style 2"/>
144 </node>
145 <node id="BAX" maxvalue="1">
146   <value val="1">
147     <exp str="!BCL2 &amp; (p53_K | c_Myc)"/>
148   </value>
149   <nodevisualsetting x="880" y="349" style="Node style 2"/>
150 </node>
151 <node id="Caspase3" maxvalue="1">
152   <value val="1">
153     <exp str="!(BCL2 &amp; p21) &amp; BAX"/>
154   </value>
155   <nodevisualsetting x="869" y="537" style="Node style 5"/>
156 </node>
157 <node id="Poliferation" maxvalue="1">
158   <value val="1">
159     <exp str="CDK2_CycE"/>
160   </value>
161   <nodevisualsetting x="998" y="335" style="Node style 7"/>
162 </node>
163 <node id="Senescence" maxvalue="1">
164   <value val="1">
165     <exp str="p21 &amp; !CDK2_CycE"/>
166   </value>
167   <nodevisualsetting x="1002" y="427" style="Node style 7"/>
168 </node>
169 <node id="Apoptosis" maxvalue="1">
170   <value val="1">
171     <exp str="Caspase3"/>
172   </value>

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173 <nodevisualsetting x="1004" y="535" style="Node style 7"/>
174 </node>
175 <edge id="c_Myc:miR_16" from="c_Myc" to="miR_16" minvalue="1" sign="negative">
176 <edgevisualsetting points="558,148" anchor="NE" style=""/>
177 </edge>
178 <edge id="c_Myc:p21" from="c_Myc" to="p21" minvalue="1" sign="negative">
179 <edgevisualsetting points="568,265" anchor="NE" style=""/>
180 </edge>
181 <edge id="c_Myc:BAX" from="c_Myc" to="BAX" minvalue="1" sign="positive">
182 <edgevisualsetting points="858,180 858,346" anchor="NE" style=""/>
183 </edge>
184 <edge id="c_Myc:E2F1" from="c_Myc" to="E2F1" minvalue="1" sign="positive">
185 <edgevisualsetting points="474,174 474,444 745,444" anchor="NE" style=""/>
186 </edge>
187 <edge id="c_Myc:BM1" from="c_Myc" to="BM1" minvalue="1" sign="positive">
188 <edgevisualsetting points="574,164" anchor="NE" style=""/>
189 </edge>
190 <edge id="p53:miR_34a" from="p53" to="miR_34a" minvalue="1" sign="positive">
191 <edgevisualsetting points="344,230" anchor="NE" style=""/>
192 </edge>
193 <edge id="p53:miR_16" from="p53" to="miR_16" minvalue="1" sign="positive">
194 <edgevisualsetting points="356,244 731,244" anchor="NE" style=""/>
195 </edge>
196 <edge id="p53:Mdm2" from="p53" to="Mdm2" minvalue="1" sign="positive">
197 <edgevisualsetting points="418,295" anchor="NE" style=""/>
198 </edge>
199 <edge id="p53:p53_A" from="p53" to="p53_A" minvalue="1" sign="positive">
200 <edgevisualsetting points="327,339" anchor="NE" style=""/>
201 </edge>
202 <edge id="p53:p53_K" from="p53" to="p53_K" minvalue="1" sign="positive">
203 <edgevisualsetting points="351,331 562,331" anchor="NE" style=""/>
204 </edge>
205 <edge id="BM1:p21" from="BM1" to="p21" minvalue="1" sign="negative">
206 <edgevisualsetting points="764,174" anchor="NE" style=""/>
207 </edge>
208 <edge id="CDK46_CycD:RB" from="CDK46_CycD" to="RB" minvalue="1" sign="negative">
209 <edgevisualsetting points="347,541" anchor="NE" style=""/>
210 </edge>
211 <edge id="Caspase3:p21" from="Caspase3" to="p21" minvalue="1" sign="negative">
212 <edgevisualsetting points="811,546 811,318 763,318" anchor="NE" style=""/>
213 </edge>
214 <edge id="Caspase3:Apoptosis" from="Caspase3" to="Apoptosis" minvalue="1" sign="positive">
215 <edgevisualsetting points="974,554" anchor="NE" style=""/>
216 </edge>
217 <edge id="Wip1:ATM" from="Wip1" to="ATM" minvalue="1" sign="negative">
218 <edgevisualsetting points="910,32 361,32" anchor="NE" style=""/>
219 </edge>
220 <edge id="Wip1:Mdm2" from="Wip1" to="Mdm2" minvalue="1" sign="negative">
221 <edgevisualsetting points="888,110 819,110 819,204 610,204 610,291" anchor="NE" style=""/>
222 </edge>
223 <edge id="Wip1:p53_K" from="Wip1" to="p53_K" minvalue="1" sign="negative">
224 <edgevisualsetting points="799,68 799,329 603,329 603,374" anchor="NE" style=""/>
225 </edge>
226 <edge id="HDAC1:miR_16" from="HDAC1" to="miR_16" minvalue="1" sign="negative">
227 <edgevisualsetting points="557,141" anchor="NE" style=""/>
228 </edge>
229 <edge id="HDAC1:ATM" from="HDAC1" to="ATM" minvalue="1" sign="negative">
230 <edgevisualsetting points="425,63" anchor="NE" style=""/>
231 </edge>
232 <edge id="HDAC1:Sirt_1" from="HDAC1" to="Sirt_1" minvalue="1" sign="negative">
233 <edgevisualsetting points="499,74 499,409 922,409" anchor="NE" style=""/>

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234 </edge>
235 <edge id="HDAC1:p21" from="HDAC1" to="p21" minvalue="1" sign="negative">
236   <edgevisualsetting points="790,69 790,276" anchor="NE" style=""/>
237 </edge>
238 <edge id="RB:c_Myc" from="RB" to="c_Myc" minvalue="1" sign="negative">
239   <edgevisualsetting points="436,481 436,187" anchor="NE" style=""/>
240 </edge>
241 <edge id="RB:E2F1" from="RB" to="E2F1" minvalue="1" sign="negative">
242   <edgevisualsetting points="363,512 756,512" anchor="NE" style=""/>
243 </edge>
244 <edge id="DNA_Damage:ATM" from="DNA_Damage" to="ATM" minvalue="1" sign="positive">
245   <edgevisualsetting points="202,61" anchor="NE" style=""/>
246 </edge>
247 <edge id="DNA_Damage:HDAC1" from="DNA_Damage" to="HDAC1" minvalue="1" sign="negative">
248   <edgevisualsetting points="184,12 555,12" anchor="NE" style=""/>
249 </edge>
250 <edge id="CDK2_CycE:RB" from="CDK2_CycE" to="RB" minvalue="1" sign="negative">
251   <edgevisualsetting points="627,580 335,580" anchor="NE" style=""/>
252 </edge>
253 <edge id="CDK2_CycE:Poliferation" from="CDK2_CycE" to="Poliferation" minvalue="1" sign="
    positive">
254   <edgevisualsetting points="755,559 754,587 967,586 966,354" anchor="NE" style=""/>
255 </edge>
256 <edge id="CDK2_CycE:Senescence" from="CDK2_CycE" to="Senescence" minvalue="1" sign="
    negative">
257   <edgevisualsetting points="793,555 793,515 977,516 977,453" anchor="NE" style=""/>
258 </edge>
259 <edge id="E2F1:ATM" from="E2F1" to="AIM" minvalue="1" sign="positive">
260   <edgevisualsetting points="737,587 307,587" anchor="NE" style=""/>
261 </edge>
262 <edge id="E2F1:c_Myc" from="E2F1" to="c_Myc" minvalue="1" sign="positive">
263   <edgevisualsetting points="654,478 654,185" anchor="NE" style=""/>
264 </edge>
265 <edge id="E2F1:Sirt_1" from="E2F1" to="Sirt_1" minvalue="1" sign="positive">
266   <edgevisualsetting points="831,474" anchor="NE" style=""/>
267 </edge>
268 <edge id="E2F1:CDK2_CycE" from="E2F1" to="CDK2_CycE" minvalue="1" sign="positive">
269   <edgevisualsetting points="730,548" anchor="NE" style=""/>
270 </edge>
271 <edge id="E2F1:BMI1" from="E2F1" to="BMI1" minvalue="1" sign="positive">
272   <edgevisualsetting points="823,491 823,223 924,223" anchor="NE" style=""/>
273 </edge>
274 <edge id="BCL2:BAX" from="BCL2" to="BAX" minvalue="1" sign="negative">
275   <edgevisualsetting points="906,326" anchor="NE" style=""/>
276 </edge>
277 <edge id="BCL2:Caspase3" from="BCL2" to="Caspase3" minvalue="1" sign="negative">
278   <edgevisualsetting points="834,290 834,525 881,525" anchor="NE" style=""/>
279 </edge>
280 <edge id="BAX:Caspase3" from="BAX" to="Caspase3" minvalue="1" sign="positive">
281   <edgevisualsetting points="843,371 843,539" anchor="NE" style=""/>
282 </edge>
283 <edge id="ATM:miR_34a" from="AIM" to="miR_34a" minvalue="1" sign="positive">
284   <edgevisualsetting points="355,105" anchor="NE" style=""/>
285 </edge>
286 <edge id="ATM:miR_16" from="AIM" to="miR_16" minvalue="1" sign="positive">
287   <edgevisualsetting points="349,21 731,21" anchor="NE" style=""/>
288 </edge>
289 <edge id="ATM:p53" from="AIM" to="p53" minvalue="1" sign="positive">
290   <edgevisualsetting points="320,117" anchor="NE" style=""/>
291 </edge>
292 <edge id="ATM:Mdm2" from="AIM" to="Mdm2" minvalue="1" sign="negative">
293   <edgevisualsetting points="487,75 487,275" anchor="NE" style=""/>

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294 </edge>
295 <edge id="ATM:Cdc25A" from="ATM" to="Cdc25A" minvalue="1" sign="negative">
296   <edgevisualsetting points="466,81 466,467" anchor="NE" style=""/>
297 </edge>
298 <edge id="ATM:E2F1" from="AIM" to="E2F1" minvalue="1" sign="positive">
299   <edgevisualsetting points="248,72 248,523 762,523" anchor="NE" style=""/>
300 </edge>
301 <edge id="miR_16:Wip1" from="miR_16" to="Wip1" minvalue="1" sign="negative">
302   <edgevisualsetting points="909,130" anchor="NE" style=""/>
303 </edge>
304 <edge id="miR_16:BMI1" from="miR_16" to="BMI1" minvalue="1" sign="negative">
305   <edgevisualsetting points="911,137" anchor="NE" style=""/>
306 </edge>
307 <edge id="miR_16:BCL2" from="miR_16" to="BCL2" minvalue="1" sign="negative">
308   <edgevisualsetting points="745,211 915,211" anchor="NE" style=""/>
309 </edge>
310 <edge id="miR_16:CDK46_CycD" from="miR_16" to="CDK46_CycD" minvalue="1" sign="negative">
311   <edgevisualsetting points="710,211 444,211" anchor="NE" style=""/>
312 </edge>
313 <edge id="miR_16:CDK2_CycE" from="miR_16" to="CDK2_CycE" minvalue="1" sign="negative">
314   <edgevisualsetting points="719,215 682,215" anchor="NE" style=""/>
315 </edge>
316 <edge id="PUMA:BCL2" from="PUMA" to="BCL2" minvalue="1" sign="negative">
317   <edgevisualsetting points="829,377 829,278" anchor="NE" style=""/>
318 </edge>
319 <edge id="p53_A:Wip1" from="p53_A" to="Wip1" minvalue="1" sign="positive">
320   <edgevisualsetting points="342,349 843,349 843,49" anchor="NE" style=""/>
321 </edge>
322 <edge id="p53_A:p53_K" from="p53_A" to="p53_K" minvalue="1" sign="negative">
323   <edgevisualsetting anchor="NE" style=""/>
324 </edge>
325 <edge id="p53_A:p21" from="p53_A" to="p21" minvalue="1" sign="positive">
326   <edgevisualsetting points="334,340 729,340" anchor="NE" style=""/>
327 </edge>
328 <edge id="p53_A:p53INP1" from="p53_A" to="p53INP1" minvalue="1" sign="positive">
329   <edgevisualsetting points="407,382" anchor="NE" style=""/>
330 </edge>
331 <edge id="p53_K:p53_A" from="p53_K" to="p53_A" minvalue="1" sign="negative">
332   <edgevisualsetting points="420,391" anchor="NE" style=""/>
333 </edge>
334 <edge id="p53_K:PUMA" from="p53_K" to="PUMA" minvalue="1" sign="positive">
335   <edgevisualsetting points="628,380" anchor="NE" style=""/>
336 </edge>
337 <edge id="p53_K:BAX" from="p53_K" to="BAX" minvalue="1" sign="positive">
338   <edgevisualsetting points="575,356" anchor="NE" style=""/>
339 </edge>
340 <edge id="p53_K:p53INP1" from="p53_K" to="p53INP1" minvalue="1" sign="positive">
341   <edgevisualsetting points="542,424 487,424 487,473 404,473" anchor="NE" style=""/>
342 </edge>
343 <edge id="Sirt_1:HDAC1" from="Sirt_1" to="HDAC1" minvalue="1" sign="negative">
344   <edgevisualsetting points="899,455 851,455 849,61" anchor="NE" style=""/>
345 </edge>
346 <edge id="Sirt_1:p53" from="Sirt_1" to="p53" minvalue="1" sign="negative">
347   <edgevisualsetting points="907,450 641,450 641,345 507,345 507,307" anchor="NE" style=""/>
348 </edge>
349 <edge id="Sirt_1:E2F1" from="Sirt_1" to="E2F1" minvalue="1" sign="negative">
350   <edgevisualsetting points="832,483" anchor="NE" style=""/>
351 </edge>
352 <edge id="Sirt_1:p53_A" from="Sirt_1" to="p53_A" minvalue="1" sign="negative">
353   <edgevisualsetting points="912,415 338,415" anchor="NE" style=""/>
354 </edge>

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355 <edge id="Sirt_1:p53_K" from="Sirt_1" to="p53_K" minvalue="1" sign="negative">
356   <edgevisualsetting points="908,423 605,423 605,387" anchor="NE" style=""/>
357 </edge>
358 <edge id="p53INP1:p53_A" from="p53INP1" to="p53_A" minvalue="1" sign="negative">
359   <edgevisualsetting points="353,436" anchor="NE" style=""/>
360 </edge>
361 <edge id="Cdc25A:CDK46_CycD" from="Cdc25A" to="CDK46_CycD" minvalue="1" sign="positive">
362   <edgevisualsetting points="467,478" anchor="NE" style=""/>
363 </edge>
364 <edge id="Cdc25A:CDK2_CycE" from="Cdc25A" to="CDK2_CycE" minvalue="1" sign="positive">
365   <edgevisualsetting points="638,478" anchor="NE" style=""/>
366 </edge>
367 <edge id="Cdc25A:E2F1" from="Cdc25A" to="E2F1" minvalue="1" sign="positive">
368   <edgevisualsetting points="676,485" anchor="NE" style=""/>
369 </edge>
370 <edge id="p21:c_Myc" from="p21" to="c_Myc" minvalue="1" sign="negative">
371   <edgevisualsetting points="739,194" anchor="NE" style=""/>
372 </edge>
373 <edge id="p21:CDK46_CycD" from="p21" to="CDK46_CycD" minvalue="1" sign="negative">
374   <edgevisualsetting points="670,280 670,463 623,463 623,517 570,517 570,555" anchor="NE"
      style=""/>
375 </edge>
376 <edge id="p21:CDK2_CycE" from="p21" to="CDK2_CycE" minvalue="1" sign="negative">
377   <edgevisualsetting points="676,286" anchor="NE" style=""/>
378 </edge>
379 <edge id="p21:Caspase3" from="p21" to="Caspase3" minvalue="1" sign="negative">
380   <edgevisualsetting points="807,285 807,554" anchor="NE" style=""/>
381 </edge>
382 <edge id="p21:Senescence" from="p21" to="Senescence" minvalue="1" sign="positive">
383   <edgevisualsetting points="747,324 973,325 974,442" anchor="NE" style=""/>
384 </edge>
385 <edge id="miR_34a:HDAC1" from="miR_34a" to="HDAC1" minvalue="1" sign="negative">
386   <edgevisualsetting points="549,142" anchor="NE" style=""/>
387 </edge>
388 <edge id="miR_34a:c_Myc" from="miR_34a" to="c_Myc" minvalue="1" sign="negative">
389   <edgevisualsetting points="550,149" anchor="NE" style=""/>
390 </edge>
391 <edge id="miR_34a:E2F1" from="miR_34a" to="E2F1" minvalue="1" sign="negative">
392   <edgevisualsetting points="373,238 818,238 817,467" anchor="NE" style=""/>
393 </edge>
394 <edge id="miR_34a:BCL2" from="miR_34a" to="BCL2" minvalue="1" sign="negative">
395   <edgevisualsetting points="362,229 901,229" anchor="NE" style=""/>
396 </edge>
397 <edge id="miR_34a:Cdc25A" from="miR_34a" to="Cdc25A" minvalue="1" sign="negative">
398   <edgevisualsetting points="269,159 268,517 537,517" anchor="NE" style=""/>
399 </edge>
400 <edge id="miR_34a:CDK46_CycD" from="miR_34a" to="CDK46_CycD" minvalue="1" sign="negative">
401   <edgevisualsetting points="288,152 287,551" anchor="NE" style=""/>
402 </edge>
403 <edge id="miR_34a:CDK2_CycE" from="miR_34a" to="CDK2_CycE" minvalue="1" sign="negative">
404   <edgevisualsetting points="383,253 663,253" anchor="NE" style=""/>
405 </edge>
406 <edge id="miR_34a:Sirt_1" from="miR_34a" to="Sirt_1" minvalue="1" sign="negative">
407   <edgevisualsetting points="398,220 837,220 837,467" anchor="NE" style=""/>
408 </edge>
409 <edge id="Mdm2:p53" from="Mdm2" to="p53" minvalue="1" sign="negative">
410   <edgevisualsetting points="484,283" anchor="NE" style=""/>
411 </edge>
412 </graph>
413 </gxl>

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