## CLAIMS

What is claimed is:

1. A method for imaging a disease or condition in a mammal which comprises the steps of:
   (a) administering a therapeutically effective amount of a cell cycle inhibitor to effectively stop proliferation of eukaryotic cells at a cell cycle checkpoint between the $G_1$ and S phase;
   (b) stopping administration of the cell cycle inhibitor for a period of time;
   (c) administering an imaging marker to the mammal; and
   (d) imaging the mammal with an imager.

2. The method of claim 1, wherein the disease or condition is selected from the group consisting of unstable angina, hypertension, epilepsy, neuropathic pain, petit mal seizure, absence seizure, age related macular degeneration, cancer, and pre-cancerous condition.

3. The method of claim 2, wherein the disease or condition is a tumor.

4. The method of claim 3, wherein the tumor is a cancerous or pre-cancerous tumor.

5. The method of claim 1, wherein the mammal is a human.

6. The method of claim 1, wherein the cell cycle inhibitor comprises nibefradil, efonidipine, ethosuxamide, TTL-1177, nickel and combinations thereof.

7. The method of claim 1, wherein the imaging marker comprises 11C Methionine, 2-deoxy-2-($^{18}$F)fluoro-D-glucose, tritiated FDG 2-deoxy-2-($^{18}$F)fluoro-D-glucose, fluoro deoxythymidines, deuterium, and combinations thereof.

8. The method of claim 7, wherein the fluoro deoxythymidine is [18F]-3'-fluoro-3'-deoxy-L-thymidine.

9. The method of claim 1, further comprising a method for extended treatment by repeating steps (a) –(d) one or more times.

10. The method of claim 9, wherein the disease or condition is a tumor.

11. The method of claim 10, wherein the tumor is a cancerous or pre-cancerous tumor.

12. The method of claim 1, wherein the cell cycle inhibitor is administered between about 1 and about 10 days, inclusively, prior to stopping administration of the cell cycle inhibitor.

13. The method of claim 12, wherein the cell cycle inhibitor is administered between about 5 and about 7 days, inclusively, prior to stopping administration of the cell cycle inhibitor.

14. The method of claim 1, wherein the administration of the cell cycle inhibitor is stopped for about 30 minutes to about 72 hours prior to administration of the imaging marker.

15. The method of claim 1, wherein the imager is selected from the group consisting of a magnetic resonance imager, a positron emission tomograph and a computer tomographer.

16. The method of claim 1, wherein the cell cycle inhibitor is administered to a concentration in a mammal's plasma of about 1 μM to about 10 μM.

17. The method of claim 1, wherein the method for imaging diagnoses a disease or condition in a mammal.

18. The method of claim 1, wherein the method for imaging screens for the efficacy of a treatment in treating the disease or condition.

## CLAIMS

1. An invention not claimed in any divisional application.