

1. Method for rapid identification of prokaryotic and eukaryotic organisms; **US Pat. No. [5,849,492](#)**, assigned: 10/2006; 1/2010. Reassigned to inventor: 6/2010.
2. Computational analysis of nucleic acid information defines binding sites; **US Pat. No. [5,867,402](#)**, licensed: 3/1998. Re-assigned to inventor: 8/2010. Licensed to Cytognomix (exclusive).
3. Single copy probes and method of generating same; US Pat. App. Ser. No. 09/573,080; **US Pat. No. [6,828,097](#)**; Continuation: US Pat App. Ser. Nos. 10/786,970; 12/411,359, licensed: 4/2006, 11/2006; Applications: PCT/US2001/015674: Australian Patent 2001264610, Korean Patent 1020027015374, New Zealand Patent 522406 and EP1285093: Notice of intent to grant patent: 9/6/2012. Canada 2409752; Israel 152727. Licensed to Cytognomix in all jurisdictions, including others not shown.
4. Chromosome structural abnormality localization with single copy probes (Continuation-in-part); US Pat. App. Ser. No. 09/854,867; PCT/US2001/015674; **US Pat. No. [7,014,997](#)**; licensed 4/2006, 11/2006; Divisional application: US Pat App. Ser. Nos. 10/876,297, 12/427,111, 12/411,359. Licensed to Cytognomix.
5. Subtelomeric DNA probes and method of producing same; US Pat. App. Ser. No. 60/415,345; PCT/US03/31170 (WO 2004/029283 A2); US Pat. App. Ser. # 10/676,248; Canadian Patent application 2500551 (9/30/03), abandoned by assignee.
6. Computational selection of probes for localizing chromosome breakpoints in genetic diseases and cancer; US Pat. App. Ser. No. 60/557,007; US Pat. App. 11/091,860; PCT/US2005/010290 (WO 2005/094291), abandoned by assignee.
7. Genomic copy number determination using microsphere-based suspension hybridization; US Pat. App. Ser. No. 60/708,734. PCT Application filed 8/16/05.
8. Mitigation of Cot-1 DNA distortion in nucleic acid hybridization; US Pat. App. Ser. No. 60/737,986; US Pat. App. No 11/561,004; **US Pat. No. [7,833,713](#)**; PCT/US06/61046; **US Pat. App. No 12/899,372**: claims allowed (11-2012).
9. Ab initio generation of single copy probes; **U.S. Pat. No. [7,734,424](#)**; Continuation-in-Part Pat. App. 11/840,103; Continuation Pat. App. 12/794,933. **U.S. Pat. No. [8,209,129](#)**. Continuation Pat. App. 13/469,531; **U.S. Pat. No. [8,407,013](#)**. Assigned to inventor. Licensed to Cytognomix (exclusive).
10. Rapid and comprehensive identification of prokaryotic organisms; US Pat. App. Ser. Nos. 60/886,595 and 12/011,425; reassigned to inventor: 6/2010; **US Pat. No. [8,076,104](#)**; Continuation Pat. App. 13/292,545.
11. Rapid and comprehensive identification of prokaryotic organisms by metagenomic analysis. **U.S. Pat. No. [8,532,934](#)**.
12. Genetic identification and validation of Echinacea species; US Pat. App. Ser. No. 60/908,586; assigned: 10/2006; **U.S. Pat. No. [7,811,766](#)**, reassigned to inventor 5/2013.
13. Accurate identification of organisms based on individual information content; US Pat App. Ser. No. 60/930,230; US Pat App. Ser. No. 12/152,610; reassigned to inventor 2/2013, **U.S. Pat. No. [8,527,207](#)**.
14. Centromere detector and method for determining radiation exposure from chromosome abnormalities. US Pat. App. Ser. No. 61/410,849 (11-5-2010); PCT/US11/59257 (WO2012061669A3), filed 4-Nov-2011. Assigned to Cytognomix. US Pat. App. Ser. No.13/822,289; entry into Pat. Prosecution Hwy. 5/2013. **U.S. Pat. No. [8,605,981](#)**; **German Pat. No. 11 2011103687**.
15. Stable gene targets in breast cancer and use thereof for optimizing therapy. US Pat. App. Ser. No. 61/591,755; US Pat. App. Ser. No. 13/744,459, **US Pat. No. [9,624,549](#)**.
16. Method of predicting mutated mRNA splice isoforms. US Pat. App. Ser. No. 61/751,975; US Pat. App. Ser. Nos. 14/154,905, and 15/729,218
17. Method of validating mRNA splicing mutations in complete transcriptomes. US Pat. App. Ser. Nos. 61/926,312, 62/044,403, and 14/594,109, 16/448,064 (CIP).
18. Biochemically-inspired machine learning of chemotherapy gene signatures. US Pat. App. Ser. No. 62/202,796. Filed: 2016.
19. Accurate automated radiation biodosimetry. US Pat. App. Ser. No. 62/476,802. Filed: 3-26-2017.

20. Smart Microscope system for Radiation Biodosimetry. **US Pat. App. Ser. No. 16/057,710**. Filed: 08-07-2018. **U.S. Pat. No. [10,929,641](#)**; US Pat. App. Ser. No. 17/137,317. Filed 12/29/2020.
21. Geostatistical Sampling Method to Determine Biodosimetry Resources Required After Radiation Exposure. US Pat. App. Ser. No 62/889,090. Filed: 08-20-2019.
22. Geostatistical Sampling Method for quantifying population exposures to environmental hazards. US Pat. App. Ser. No. 63/007,672. Filed: 04-09-2020.
23. **METHOD FOR IDENTIFYING AND QUANTIFYING POPULATIONS EXPOSED TO ENVIRONMENTAL HAZARDS ACROSS A GEOGRAPHIC REGION.** US Patent Application Ser. No. 16/996,792. Filed: 08-19-2020. Restricted, claims elected.
24. Determining chemotherapy response from pathway-extended, biochemically inspired genomic signatures. US Pat. App. Ser. No. 63/105,197. Filed 10-23-2020.
25. **METHOD FOR DETERMINING RADIATION EXPOSURE WITH SENSITIVE AND SPECIFIC GENE EXPRESSION SIGNATURES.** US Patent Application Ser. No. 17/402,550. Filed 08-15-2021.