Journal of Molecular Biomarkers & Diagnosis

Skopec, J Mol Biomark Diagn 2016, 7:3
DOI: 10.4172/2155-9929.1000e123

Editor Note Open Access

Editor's Note: Journal of Molecular Biomarkers & Diagnosis Volume 7 Issue 3

Alexander E Berezin*

Research Analyst, AXON, Dubnik, Slovakia

Molecular Markers in Diagnostics

Due to the recent advancements in the molecular biology the understanding of life processes at molecular level had increased to a great deal. This has increased the prominence of biomarkers and their usage in diagnostics of many diseases. A molecular biomarker is biomolecule present in biological samples. A molecular marker can be used to diagnose genetic disorders (cystic fibrosis), identity of a living thing (DNA Barcoding) and taxonomic affinity (phylogenetics) and in diagnostic tests for complex neurodegenerative disorders (Alzheimer's disease).

Journal of Molecular Biomarkers and Diagnosis is an online, Open Access, medical journal that publishes scientific articles related to biomarkers, biomarker toxicology, cancer biomarkers, cytogenetics, DNA-profiling, genetic markers, etc. In volume 7 issue 3 of the journal high quality scientific articles related to various aspects of molecular biomarkers were published.

In the recent past diagnosis of genetic disorders of the fetus by amniocentesis has gained popularity. In order to make this type of diagnosis simple, Willems et al. in their research article proposed a reliable method for detecting fetal trisomy 21, 18 and 13, by Cell-free DNA (cfDNA) analysis of maternal blood. They analyzed large clinical series of 10,000 consecutive pregnancies to prove and standardize the diagnostic process [1].

Recently forensic DNA typing has been widely used by forensic scientists, in which DNA fragment analysis technology is used. The inheritance pattern of X, Y and Mitochondrial chromosomes makes them suitable for establishing lineage. Jain et al. studied the efficacy of Y-STR kit and PowerPlex Y23 (PP Y23) system, which is a 5-dye multiplex genotyping kit in Forensic casework. Authors demonstrated that the PPY23 system is a robust and sensitive multiplex system which will give reliable and consistent amplification results of forensic casework samples. The study concluded that presence of high concentration of common inhibitors such as hematin and humic acid, male/female DNA mixtures and low amounts of DNA would not hamper the amplification process [2].

CRISPR/Cas9 (Clustered Regions of Interspersed Palindromic Repeats-Cas9) system is an ancient anti-viral immune system found in archaea and bacteria. In the review article Golkar et al. discussed about CRISPR/Cas9 which enables investigators to induce targeted mutations or correct mutations, or gene modulation [3].

A rare case was reported by Boukobza et al. in which a 14-year-old boy with cerebellopontine angle (CPA) medulloblastoma was studied. Clinical onset by acute hearing loss and MRI features were, furthermore, unusual findings. They pointed out that apparent diffusion coefficient (ADC) value and Spectroscopy will be useful in differentiating CPA tumors from ependymoma in children [4].

Zhang et al. briefly described about Farnesoid X receptor (FXR), which is a bile acid-activated nuclear receptor and plays a key role in bile acid, lipid and glucose homeostasis. Authors suggested that FXR may be a potential therapeutic target for treating hepatorenal syndrome and nephrogenic diabetes insipidus [5].

Authors Skopec, He and Biswal discussed about modeling of tumor initiation as Ricci flow, role of *Reg* proteins in pancreatic regeneration and helminthic infections respectively [6-8].

References

1. Willems PJ, Dierickx H, Segers N, Castenmiller C, Verschueren S, et al. (2016) High positive predictive value (PPV) of Cell-Free DNA (cfDNA) testing in a clinical study of 10,000 consecutive pregnancies. J Mol Biomark Diagn 7: 285.
2. Jain T, Shrivastava P, Bansal DD, Dash HR, Trivedi VB (2016) Power plex Y23 system: A fast, sensitive and reliable Y-STR multiplex system for forensic and population genetic purpose. J Mol Biomark Diagn 7: 281.
3. Golkar Z, Rochelle L, Bagasra O (2016) Crisprs/Cas9 may provide new method for drug discovery and development. J Mol Biomark Diagn 7: 280.
4. Boukobza M, Polivka M (2016) Medulloblastoma of the cerebellopontine angle in a child: A case report and review of the literature. J Mol Biomark Diagn 7: 284.
5. Zhang X, Guan Y (2016) Nuclear Receptor FXR: A potential therapeutic target for the treatment of diseases with impaired urine concentration. J Mol Biomarkers Diagn 7: 278.
6. Biswal D (2016) Helminth infections and gut microbiota: The futuristic study of pathogen virulence and gut ecosystem. J Mol Biomark Diagn 7: 283.
7. He Z (2016) The role of reg proteins in pancreatic regeneration. J Mol BiomarkDiagn 7: 282.
8. Skopec R (2016) Modeling Tumor initiation as Ricci flow. J Mol Biomarkers Diagn 7: 279.

***Corresponding author:** Robert Skopec, Research Analyst, AXON, Dubnik, Slovakia, Tel: +421 908220692; E-mail: zxcbnvm7@gmail.com

Received May 25, 2016; **Accepted** May 27, 2016; **Published** May 29, 2016

Citation: Skopec R (2016) Editor's Note: Journal of Molecular Biomarkers & Diagnosis Volume 7 Issue 3. J Mol Biomark Diagn 7: e123. doi:10.4172/2155-9929.1000e123