Precision medicine in our companion animals includes state-of-the-art methods for DNA profiling. DNA profiles of the individual cats. Over 70 variants are known for 40 genes that cause phenotypic traits and health concerns. Most of the assays worked perfectly since they correlate with the known cats' phenotypes although some assays need improvement, such as the four assays required for the blotched tabby locus. These results demonstrate that MassARRAY technologies are accurate, efficient, and fast effective for performing DNA testing in cats. Therefore, these assays could aid veterinary practices to address cats to confirm breed, physical traits and hereditary conditions in order to improve their healthcare.

**Methods and materials:**
- Samples were obtained from buccal swabbing using cytological brushes.
- DNA was isolated using Qiagen extraction kit.
- Genetic assays for 29 genes and 53 variants.
- Genotyping was achieved by using MALDI-TOF MassARRAY technologies.

**Results:**
- The cat segregated for 15 variants, 3 variants need design improvement.
- The data confirms the accuracy and efficiency of the MassARRAY technology since the results match the cat's conditions.
- Only two PCR reactions were required to test all 53 variants.

**Conclusion:**
- Genetic testing confirmed diagnosis of PKD, PRA, and HCM which had been diagnosed using standard clinical imaging techniques, ultrasound, fundus exam, and echocardiogram.
- Only one genotype appeared to be incorrect suggesting high accuracy of the MALDI-TOF assay.
- The technique is rapid and robust, additional tests can easily be included in the multiplex assay.
- Veterinarians and owners can rapidly get genetics tests results that would support treatments and breeding decisions.

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**References:**