Updates to the Forensic Research/Reference on Genetics knowledge base (FROG-kb) database

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1. Introduction

Recent updates to FROG-kb have centered on inputting additional data and website enhancements; and a visual on how to utilize FROG-kb. This poster provides an overview of FROG-kb; recent updates to the database, including data and website enhancements; and a visual on how to utilize FROG-kb.

2. New Data Additions and FROG-kb Usage Summary

Some of the updated features for the FROG-kb website are shown in the diagrams (Figure 1). The Main Menu can now navigate among menu options and is accessible from any page on the FROG-kb database.

3. FROG-kb Features

- Panels: presents answers to Frequently Asked Questions about FROG-kb.
- SNP: allows searching, retrieving, and recording data from FROG-kb.
- SNPs: provides an overview of the SNP databases and data computation for the KiddLab – 45 Unlinked IISNPs. AISNPs provide the ability to calculate random match probabilities for user-specified genotypes.
- ISNP: allows searching, retrieving, and recording data from FROG-kb.
- PISNP: provides the ability to calculate random match probabilities for user-specified genotypes.
- **Table 1:** Overview of IISNP data entry and data output.
- **Table 2:** Overview of FROG-kb usage summary.

4. ISNP Data Entry and Data Output

PISNP provides the ability to predict a scalable tool for user-specified genotypes for the internal ISNP. Data accuracy is assessed as user-specified genotypes and data computation by the report’s accuracy for user-specified genotypes.

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6. Conclusion

Understanding and utilizing ISNP are important as a new area in the forensic field, and FROG-kb serves to provide this to the community in a user-friendly, free, and web-accessible resource. Curators of FROG-kb and the Forensic Technology Center of Excellence (FTCoE) have worked together to increase awareness of FROG-kb, enhance website functionalities, and identify a continual user feedback loop for guidance for accessing, using, and utilizing FROG-kb.

7. References

Kidd K, Rajeevan H, Moore K, Satcher R, Melton P, Ropero-Miller J. (2012). Understanding and utilizing SNPs are important as a new area in the forensic field, and FROG-kb serves to provide this to the community in a user-friendly, free, and web-accessible resource. Curators of FROG-kb and the Forensic Technology Center of Excellence (FTCoE) have worked together to increase awareness of FROG-kb, enhance website functionalities, and identify a continual user feedback loop for guidance for accessing, using, and utilizing FROG-kb.

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More Information

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The Forensic Research/Reference on Genetics knowledge base (FROG-kb) database provides a user-friendly, free, and web-accessible resource for the forensic community. One of the updates entailed creating a comprehensive menu of currently available panels with easy drop-down selections on how to use and search FROG-kb from the different SNP panels. This poster will provide an overview of the new infrastructure and development of the KiddLab – 45 Unlinked IISNPs. AISNPs provide the ability to calculate random match probabilities for user-specified genotypes.

Table 1: Overview of IISNP data entry and data output.

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>User-specified genotype</td>
<td>conveys the user-specified genotype for the relevant SNPs.</td>
</tr>
<tr>
<td>Reference population</td>
<td>provides the reference population for the user-specified genotype.</td>
</tr>
<tr>
<td>Data probability</td>
<td>conveys the probability of a random match for the user-specified genotype.</td>
</tr>
</tbody>
</table>

Table 2: Overview of FROG-kb usage summary.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total days</td>
<td>2015</td>
</tr>
<tr>
<td>Average visits per day</td>
<td>22</td>
</tr>
<tr>
<td>Total unique IPs</td>
<td>93,309</td>
</tr>
<tr>
<td>Total visitors</td>
<td>29,552</td>
</tr>
<tr>
<td>Total hits</td>
<td>12,943</td>
</tr>
</tbody>
</table>

The database access is made available for the forensic community and development of the KiddLab – 45 Unlinked IISNPs. AISNPs provide the ability to calculate random match probabilities for user-specified genotypes.