ALL-ST*R –

Allele frequency database for autosomal STR Marker

Short Guide

Editorial Work

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1 Introduction

ALLST*R is a new and comprehensive allele frequency database for autosomal short tandem repeats (STRs). The basic idea of ALLST*R database is to provide a tool for building up a central collection of autosomal allele frequencies. For this, the web-based software application provides a variety of functions, such as the addition of allele frequencies, the export of existing data and the calculation of biostatistical quality parameters.

In addition the user gets comprehensive information on STR markers, populations, biostatistical parameters as well as references from literature.

This guide is intended to provide a simple introduction to working with the database and its capabilities - especially for importing data.

2 Registration and Login

1. Step: Prerequisite for the import of data is the successful registration under http://www.allstr.de and the subsequent login to the system. The registration form can be reached via the menu bar (menu item **Register**) at the top of the page.

Picture 1: menu bar

Step 2: To register successfully, you have to complete all required fields (red asterisk *) and confirm with the button **Register**.

Picture 2: Registration form

After successful registration you receive a message to your email account (which you have declared in the registration form). In this email you will find an activation link to activate your account.
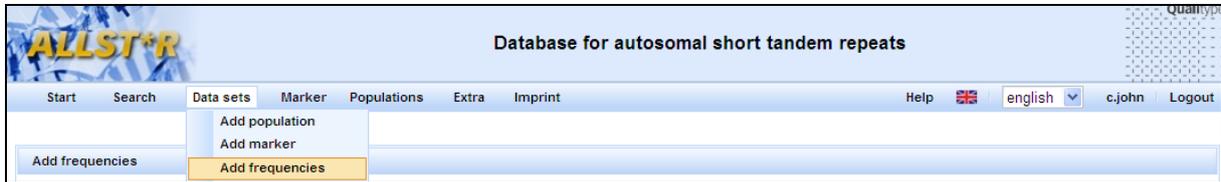
> ❓ Incorrect entries will be indicated by an icon after the respective input field. In addition, an error message appears in the header of the form.

Step 3: Now you can open the menu item **Login** in the menu bar to logon to the website. After successful registration, your username appears in the menu bar of the header section of the website.

> ❓ By clicking on your username you get access your user profile. There you have the possibility to edit your user information.

3 Import of allele frequencies

Step 1: To submit allele frequency data to the website, please choose the menu item **Data sets/Add frequencies**. The form for entering the frequency information opens.

Picture 3: Add frequencies

Step 2: A record is represented by a marker, a population or the frequency data (alleles and frequencies). ALLST*R provides a wide range of populations and markers. If the marker is not available in the database, you can add the marker by your own. For this please use the menu item **Data sets/Add marker**. This option also exists for populations. If population and markers are already available in the database, you can now proceed with **step 5**.

Picture 4: Add frequencies

Step 3: If the markers is not available in the database, please add the marker using the menu item **Data sets/Add marker**. Please enter the required information into the fields of the form (marked with red

asterisk *). The field marker (name of the marker) and chromosome are necessary to add the marker into the system.

Picture 5: Add marker

To complete the registration of the new marker please confirm with the button **Save**. To verify the data in the next step, the data you entered are displayed again and you have to confirm the entry a second time. Subsequently, the marker appears in the marker list of the form to add frequencies from step 2.

> ❷   First the marker appears only in the selection list of the form. The inclusion in the database is done only after activation of the marker by an employee of Qualitype AG.

Step 4: If the population is not available in the database, please add the population using the menu item **Data sets/Add population**. Please enter the required information into the fields of the form (marked with red asterisk *).

Picture 6: Add population

An additional feature of ALLST*R is the visual display of the population on a world map. By choosing a continent and the country in the fields the position marker will be set automatically.

But you have also the possibility to set the position marker manually by clicking on the map at a different position. Then the calculated coordinates appear in the input field latitude and longitude degrees.

If all entered data are correct, please confirm with the button **Save**.

> ❷ First the population appears only in the selection list of the form. The inclusion in the database is done only after activation of the population by an employee of Qualitype AG.

After confirming the data you get back to the form to add frequencies.

Step 5: Please fill in all required information in the form (required fields are marked with a red asterisk*).

Afterwards please choose the number of allele. The preset number of allele affects the number of fields, which are available for the input of frequency data. Now please enter the allele frequency data. Please confirm the entry with the button **Save**. The confirmation page opens.

Picture 7: Add frequencies

❓ Optionally, you can specify a reference for the record. For this the title and the PubMed ID is required. Confirm the reference with the button **Add Reference**. The reference appears in a list and a second reference can be entered. In this manner one or more references can be added.

❓ With the link **Template for import** the user can download a template for the quick input of data. To upload the template afterwards, please choose the link **Import template**. The data from the template are taking over automatically.

Step 6: Please check all entered details. To change the entered data please use the button **Back.** Additionally you can find on the confirmation page a table with all calculated biostatistic quality parameters. To confirm the entry please choose the button **Save**.

An email with all information and the results of the biostatistic calculation and the accession number is generated automatically and will be sent to your email account.

Möchten Sie die Daten wirklich speichern?

Parameter

Population: Albaner (Kosovo)
Marker: CSF1PO
Getestete Individuen: 654
Geschlecht: alle

Frequenzen

Allel	Frequenz
4	0,2000
5	0,2000
6	0,2000
7	0,2000
8	0,2000
Σ	1.0

H	0,2000
HET	0,8000
PIC	0,7680
PD	0,9120
PE	0,5952
PI	2,5000
MEC	0,5952

Zurück Speichern

Picture 8: Confirmation page

> ❓ If the sum of all frequencies deviates from the ideal value of one an additional box appears. In the box the user must specify the reasons why the allele frequency deviate and can save the data afterwards.
>
> ❓ The data set do not appear immediately in the database. The record will be verified and un-locked by a staff from the Qualitype AG as soon as possible.