



Pedigree Chart Designer

A Physician's Manual to Use



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www.FHCanada.net

About this presentation:

1. Downloading the program
2. Creating a pedigree
3. Labeling conventions for FHCanada

Note: All processes are identical on MAC and Windows OS.

1. Downloading the program

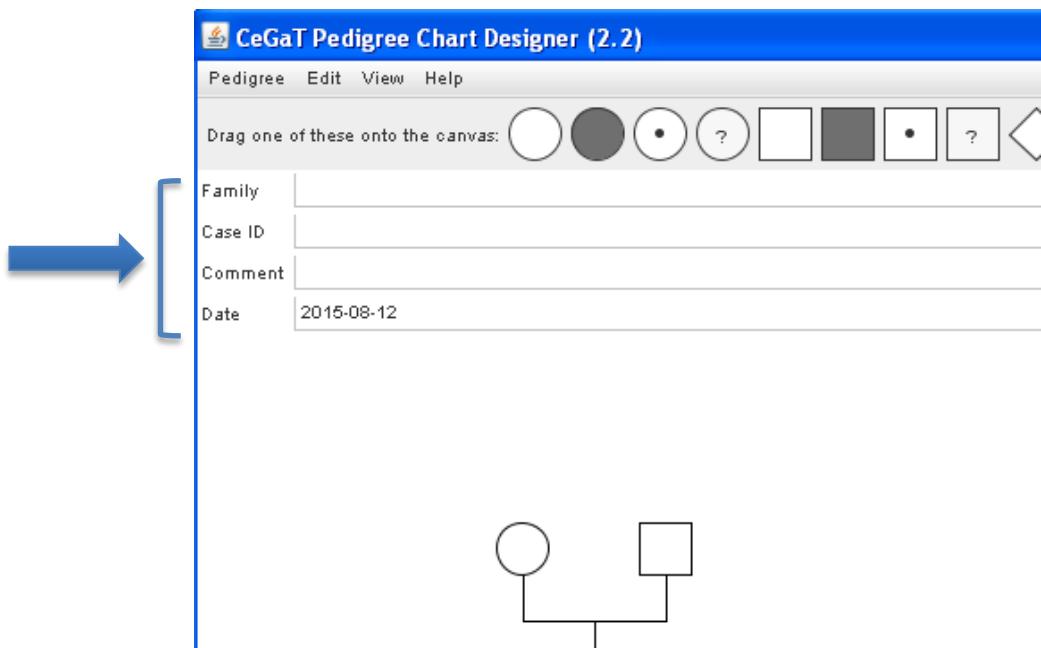
- Ensure that you have a recent version of Java installed. If not, get it from <https://java.com/en/download/>.
- In your browser's address bar, type in **pedigree.cegat.de**
- The download should start automatically.
- After the download has completed, click on the file to open the program. No installation necessary.



2. Creating a pedigree

Getting started

- Making a pedigree is easy!
- Start by filling in basic information about the family, such as the name, a case number, and some comments, in the text boxes located near the top.



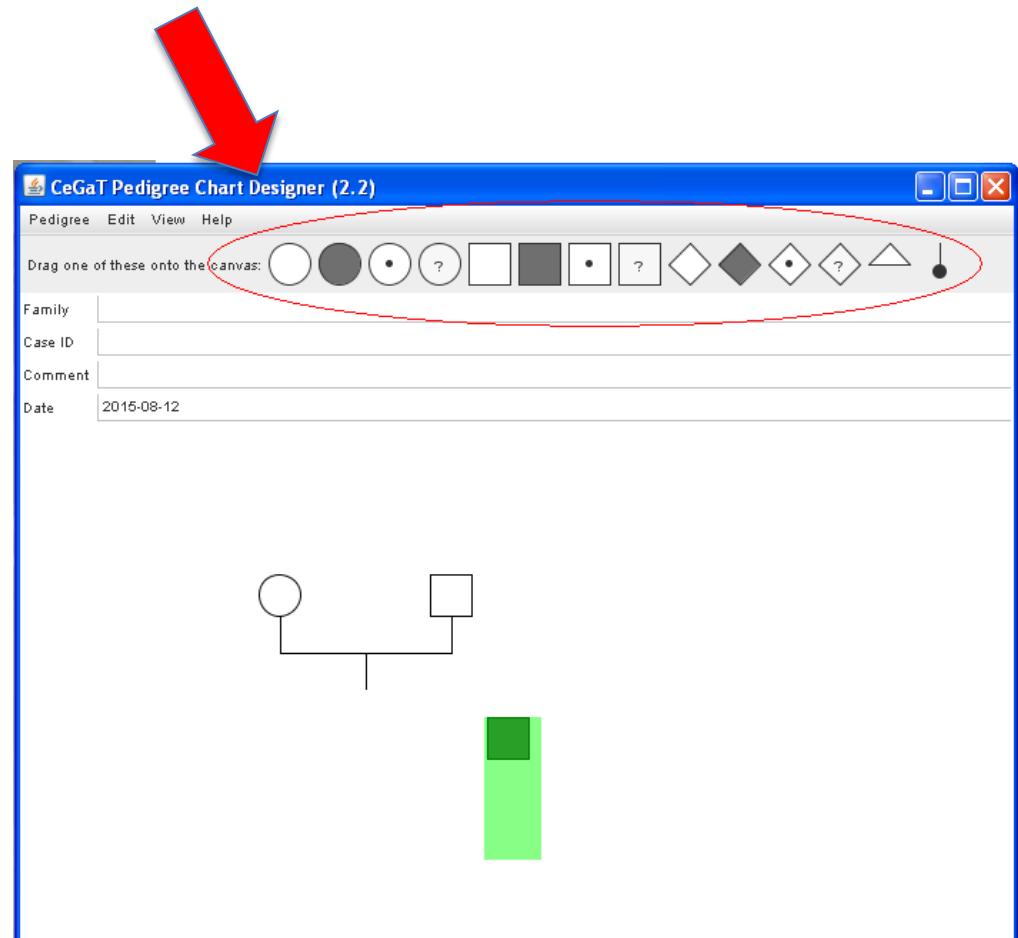
2.1 Adding people

- Drag the desired symbol from the toolbar to the drawing canvas.
- While dragging, a green shadow indicates a permissible location to place the symbol, while a red shadow indicates an inappropriate place.
- Once the symbol is placed, the personal details window will appear.

Tip:

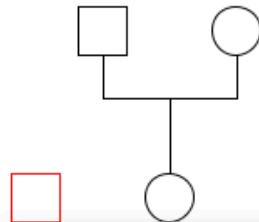


to add a person at the current mouse position.



2.2 Adding personal details

- The personal details window will appear either by dragging a symbol onto the canvas or clicking on an existing symbol.
- You can edit the name or identifier, add a birth date, write one or more lines of comment, define the gender, disease state, living/deceased.
- You can indicate the index patient.
- Note that each person is automatically assigned an identifier unless you select the viewing style without numbering (see 3.2).



A family tree diagram is shown above a detailed personal details window. The tree consists of three generations: a male in the first generation, two males in the second generation, and three individuals (two males and one female) in the third generation. The female in the third generation is highlighted with a red border.

Select partner

Remove partner

Make child of

Make twin of

Full name

Date of birth

Comments

Gender	Phenotype	State
female	healthy	alive
male	affected	deceased
unknown	known carrier	unborn
	unknown	stillborn
		unknown

index patient

Remove this person

Tips:

Ctrl **G**

to change a person's gender.

Ctrl **D**

to change a person's status between living and deceased.

2.3 Defining relationships

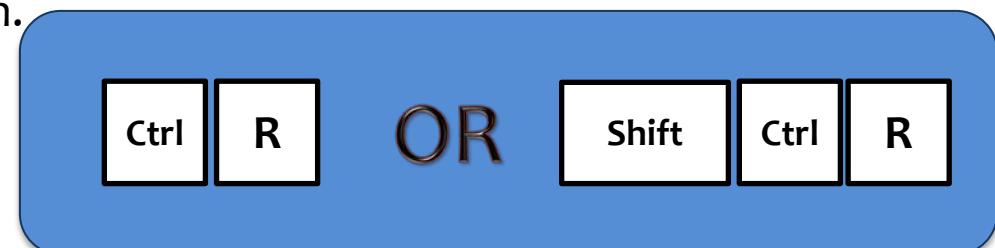
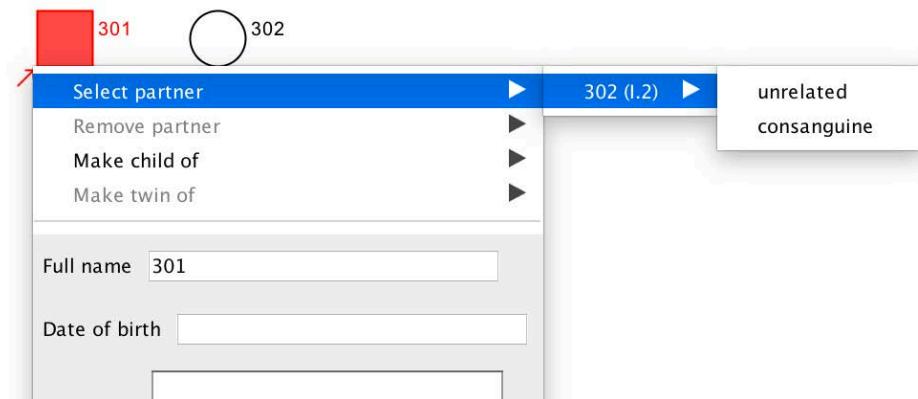
There are two ways to define a relationship between two people.

I. Via the personal details window:

- Click on one of them, the personal details window appears.
- Click on “Select partner”, and choose the partner.
- Define the relationships as “unrelated” or “consanguine”.

II. Via shortcuts:

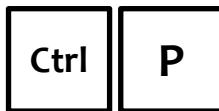
- Place cursor over person and press Ctrl-R, then click on another person.
- For a consanguinous relationship, press Shift-Ctrl-R.



2.4 Assigning Children

- Make sure the parents' relationship is already defined (see 2.3).
- From the personal details window of the child, select "Make child of" and select the parents.
- You can also assign a child to a single parent if no information is available for a parent.

TIP:



with the cursor over a child, then select the first parent and second parent.

The screenshot shows a pedigree chart at the top with a female (circle) and a male (square). Below it is a window for a child's personal details. The window includes fields for 'Select partner' (with options 'unrelated' and 'consanguine' shown), 'Full name', 'Date of birth', and 'Comments'. At the bottom, there are dropdown menus for 'Gender' (female selected), 'Phenotype' (healthy selected), and 'State' (alive selected), along with a checkbox for 'index patient' and a 'Remove this person' button.

2.5 Saving, loading, printing

Save

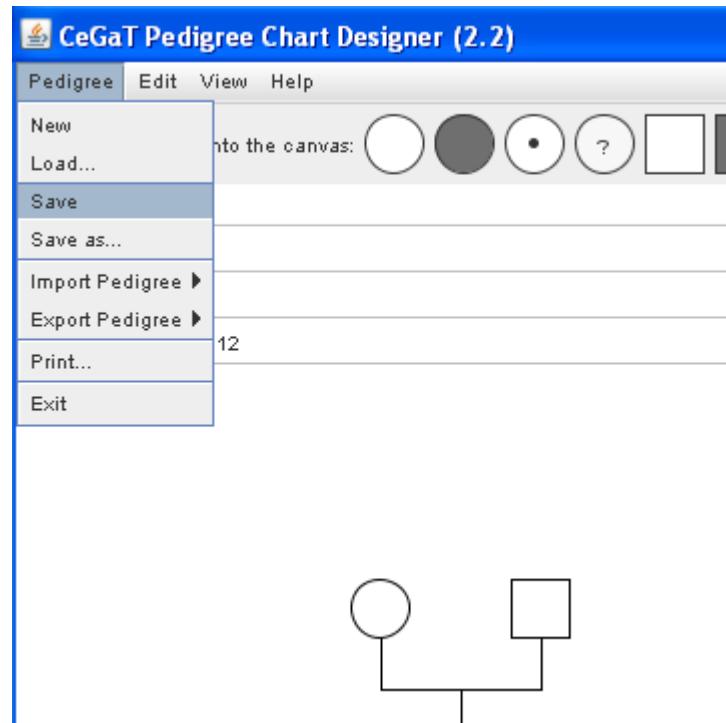
- Save a pedigree by clicking on “Pedigree” from the top bar, and “Save” or “Save as”.
- Files are stored as PNG format, which can be imported into many applications such as PowerPoint, Photoshop, or web pages.
- With additional information stored in the graphics file, it is available for editing at a later time.

LOAD

- Load a pedigree by clicking on “Pedigree” – “Load”.
- Only files created by this program can be loaded.
- Note: Files that have been altered with another application, such as Photoshop, will likely not work due to removal of additional data fields.

Print

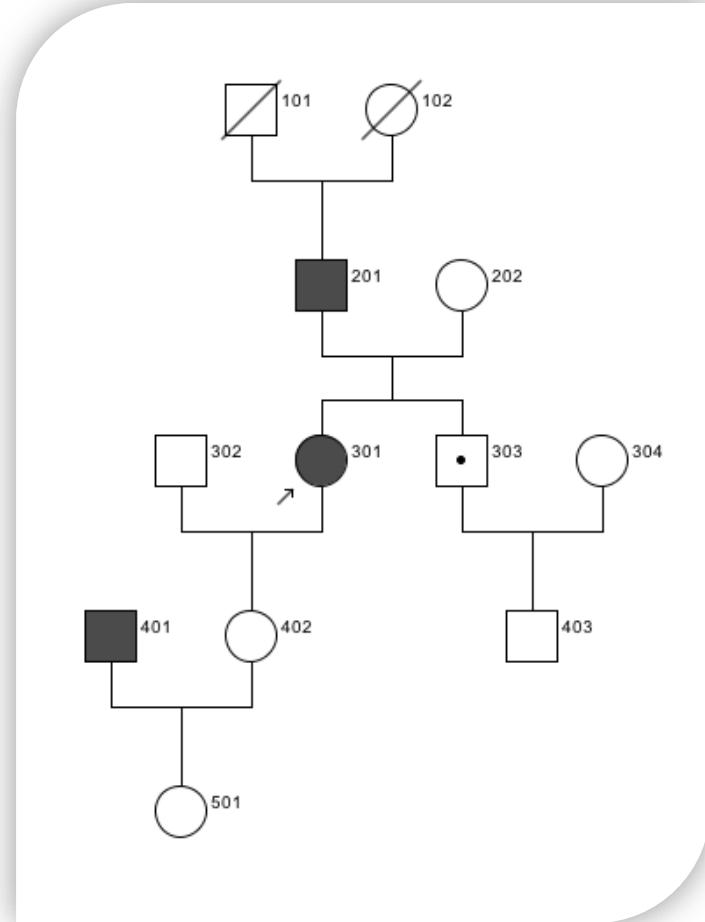
- Print a pedigree by clicking on “Pedigree” – “Print”.
- Pedigree is automatically scaled to fit the selected paper size and orientation.



3. Labeling Conventions for FHCanada

3.1. Family Tree ID

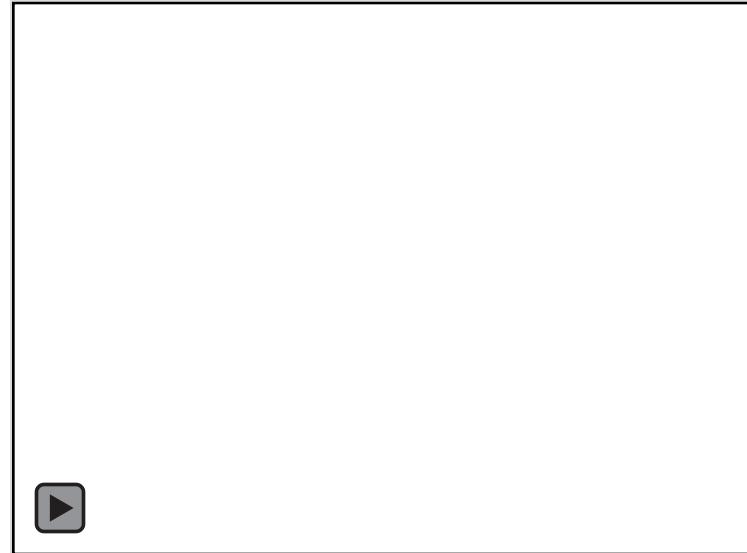
- Members of a family tree are de-identified using a specific numbering convention.
 - The proband is always 301. Other members in his generation are numbered sequentially in the 300's.
 - Members in the proband's children's and grandchildren's generation are numbered in the 400's and 500's, respectively.
 - Similarly, members in the proband's parents' and grandparents' generation are numbered in the 200's and 100's, respectively.
- The family tree ID is comprised of the proband's hospital number or healthcare number followed by “.” plus the identifier, for example “123456.301”. This ID is stored in the patient's records.



3.1 Using the viewing style adapted for FHCanada

(Press to play clip)

- The program has 3 viewing styles, which can be selected under the “View” menu from the top bar.
- Select “CeGaT style without numbering” for your pedigree.
- This renders your subjects to be free from the default numbering system, allowing the identifier to be read clearly.



3.2 Setting the legend

(Press to play clip)

- For FHCanada, hypercholesterolemia is the affected phenotype. Individuals with this condition should be reflected in the pedigree as well as the legend.
- Under the “View” menu, select “Show legend”. A legend bar will appear at the bottom of the window.
- Click on the text to edit.



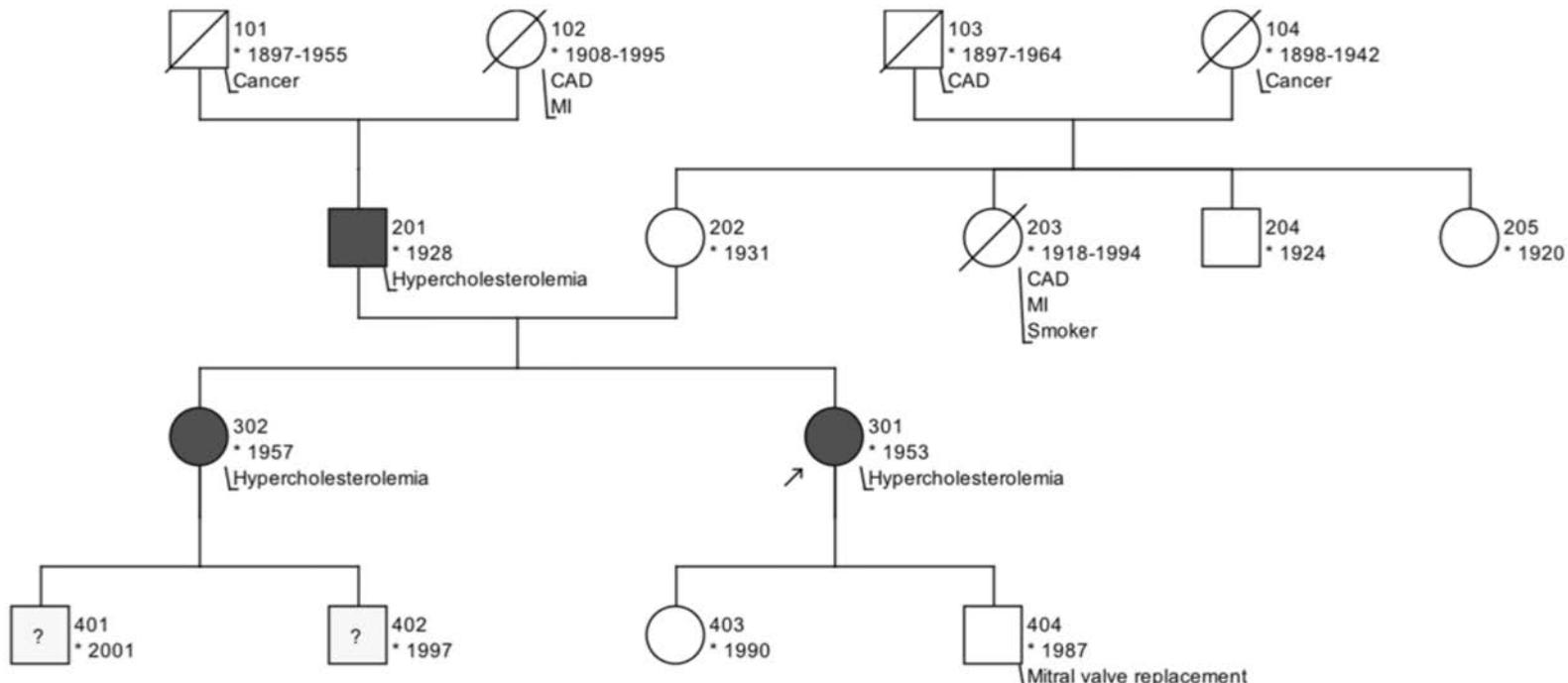
Sample Pedigree

Family RBR

Case ID 123456

Comment FH Patient

Date 2015-08-10



Ce
GaT
© Pedigree
Chart
Designer

Many thanks to Center for Genomics and Transcriptomics
(www.cegat.de) for specifically adapting the Pedigree Chart Designer for use by FHCanada.

For more information, please visit: www.FHCanada.net.

Created by Lotus Yang, medical student of McGill University.