

**MEDICAL ACADEMY  
NAMED AFTER S.I  
GEORGIEVSKY  
OF VERNADSKY CFU**

**NAME= ROHAN SAINI**

**GROUP= LA1 202[2]**

**TOPIC= GENELOGICAL DIAGNOSTIC METHOD**

---

**TEACHER NAME= SVETLANA SMIRNOVA MAM**

# GENEALOGICAL METHOD

- **Medical Genealogy** is the study of families, family lineages and medical family history.
- Information about a family is obtained by oral interviews

- 
- Examples: 1. By a clinical geneticist  
2. physician or a genetic counselor from medical and historical records, (previous) genetic analysis, and other relevant sources.

- 
- Genealogy is utilized in basic research of genetic rules governing transmission of a trait and, in clinical (medical) genetics, for clinical consulting practice at follow-up of inheritance of various traits.

# WHAT IS THE MEANING OF GENEALOGICAL

---

- 1 : an account of the descent of a person, family, or group from an ancestor or from older forms.
- 2 : regular descent of a person, family, or group of organisms from a progenitor or older form : pedigree.
- 3 : the study of family ancestral lines.

# PEDIGREE ANALYSIS

- This is a graphical recording of kinship relations between persons in individual generations.
- It represents the foundation of genealogical method and provides basic information about the occurrence of chosen trait/phenotype.

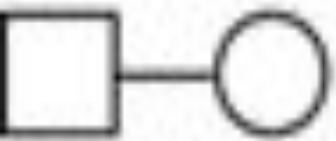
# PEDIGREE

## SYMBOL TABLE

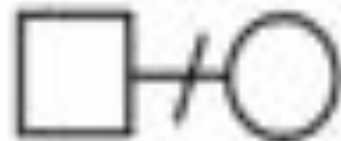
	<b>Male</b>		<b>Affected male</b>
	<b>Female</b>		<b>Affected female</b>
	<b>Sex unspecified</b>		<b>Affected individual of unspecified sex</b>
	<b>Three males</b>		<b>Male – heterozygote</b>
	<b>Two females</b>		<b>Female - heterozygote</b>
	<b>Monozygotic twins</b>		<b>Carrier (X-linked)</b>
	<b>Dizygotic twins</b>		<b>Proband</b>
	<b>Adopted into a family</b>		<b>Deceased male</b>
	<b>Adopted out of a family</b>		<b>Prenatal death</b>
			<b>Miscarriage</b>

# PEDIGREE

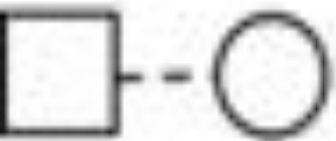
## SYMBOL TABLE



**Marriage**



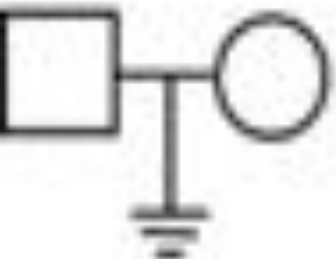
**Divorce**



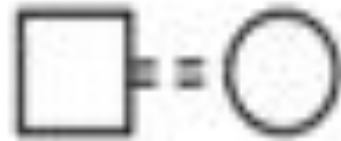
**Extramarital  
mating**



**Consanguineous  
mating**



**Sterility**

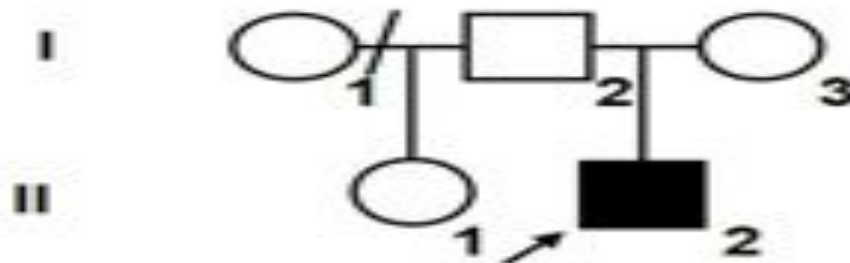
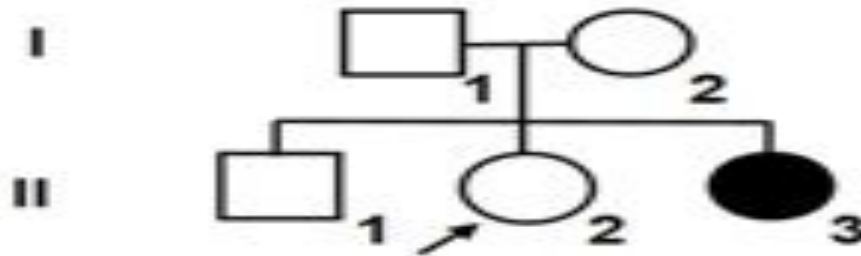


**Consanguineous  
extramarital  
mating**



# NUMBERING OF INDIVIDUAL IN PEDIGREE

## Numbering of individuals in pedigrees



# WHAT IS PROBAND

---

- The person providing the information for construction of pedigree and being interested in evaluation/estimate of the probability (risk) of recurrence of the trait; in the pedigree, this person is labeled with an arrow

# GENEALOGY ANALYSIS AS METHOD OF RESEARCH

---

- From biological point of view, genealogy is considered as one of methods of genetic research. It resides in a selection of families with suitable types of crossing.
- Afterwards, this genealogy material is subjected to logical analysis

- 
- In individual families, the effort is made to explain the transmission of traits by schedules used in experimental phenogenetics.
  - For examination of the type of genetic determination in genealogy, many statistical methods (and now computer programs) have been developed enabling investigation of the ratios, the penetrance of followed gene, and estimates of the heritability using a collection (databases) of pedigrees.

---

**THANK  
YOU**