QUESTIONNAIRE

PART 1

- 1) Years of Experience as a specialist in Clinical Genetics:
- a. > 5
- b > 5
- 2) In which region of the country is located the public hospital where you work?
- a. North Zone
- b. Central Zone
- c. South Zone
- 3) In cases of CNVs associated with neurodevelopmental disorder, in my service, Clinical Geneticist (check all that apply):
- a. Discusses cases with the Maternal-Fetal Medicine team
- b. Refers cases to the Pediatric Neurodevelopment and/or Child Psychiatry consultation
- c. Refers cases to General and Family Medicine
- d. Reevaluates cases near adulthood and/or during reproductive planning
- e. Reevaluates cases when requested
- 4) What techniques have been used for CNV detection (in the last 10 years)? Please check ALL applicable options:
- a. aCGH
- b. SNP-array
- c. MLPA
- d. Other: _____
- 5) Where is the cytogenetic study for CNV detection performed?
- a. Laboratory within the center
- b. NHS-contracted laboratory
- c. Privately contracted laboratory
- 6) If you answered "Contracted Laboratory" in the previous question (NHS or Private), please specify which one. _____
- 7) Regarding the classification used (by the clinician and/or the laboratory you work with) for classifying CNVs in postnatal cases, please check ALL that apply:
- a. Pathogenic / Probably pathogenic
- b. Variants of unknown significance
- c. Susceptibility variants
- d. Variants of uncertain significance
- e. Variants of uncertain or unknown significance (not differentiated in classification)
- f. Benign / Probably benign
- g. Other classification
- 8) Regarding the classification used (by the clinician and/or the laboratory you work with) for classifying CNVs in prenatal cases, please check ALL that apply:
- a. Pathogenic / Probably pathogenic
- b. Variants of unknown significance
- c. Susceptibility variants
- d. Variants of uncertain significance
- e. Variants of uncertain or unknown significance (not differentiated in classification)
- f. Benign / Probably benign
- g. Other classification

PART 2

The following questions will be about low penetrance CNVs / susceptibility CNVs for neurodevelopmental pathology. Considering 1- strongly disagree, 2- disagree, 3- neither agree nor disagree or have no opinion, 4- agree, 5- strongly agree, please mark the questions below:

- 1) When a low penetrance variant explains the proband's phenotype, I believe clinicians should offer testing to the parents and all family members who wish to be tested. 1 2 3 4 5
- 2) The laboratory should report all findings, regardless of their clinical significance, only in postnatal cases.

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- 3) I consider that parents/probands may have difficulty understanding the information provided in genetic counseling, especially the possible findings of the genetic study. 1 2 3 4 5
- 4) I consider that parents/probands should have an active role in the decision-making process about the information they want to know. 1 2 3 4 5
- 5) In our service, all findings, including variants of uncertain significance or low penetrance, are reported only in postnatal cases.

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- 6) Disclosure incidental findings can lead to parental anxiety. 1 2 3 4 5
- 7) I believe the clinician should "choose" the findings to disclosure based on what the parents want to know.

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8) The decision on which information to disclose, especially regarding variants of uncertain clinical significance, should be determined by national guidelines and not left to individual laboratories/clinicians.

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9) Parental preferences should determine which results are disclosure, not the opinions of clinicians.

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- 10) One reason why information about variants of uncertain clinical significance should not be disclosed to parents is that it may result in the termination of healthy pregnancies. 1 2 3 4 5
- 11) I believe low penetrance CNVs should be investigated in the context of pre-implantation genetic diagnosis when the purpose of the technique is a monogenic disorder. 1 2 3 4 5
- 12) The laboratory should disclose results of uncertain clinical significance (low penetrance) only in postnatal cases.

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13) In our service, only findings that explain the fetal phenotype are disclosure. 1 2 3 4 5

14) In my opinion, variants of uncertain clinical significance/low penetrance should be reported.

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15) When a low penetrance variant explains the proband's phenotype, clinicians should offer invasive prenatal diagnosis in future pregnancies.

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16) The laboratory should disclose only variants that provide a clinical explanation for the found fetal anomaly.

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17) One reason why variants of uncertain clinical significance should be disclosed is that it gives parents the option of pregnancy termination.

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18) National guidelines for variants of uncertain clinical significance may not be applicable to individual cases and each case should be discussed/thought separately.

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19) I consider that parents/probands may have difficulties understanding the information provided in genetic counseling.

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20) In my service, variants of uncertain clinical significance/low penetrance are disclosure. 1 2 3 4 5

21) I believe the clinician receiving the report should decide what information to give to parents/probands.

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22) Embryos carrying low penetrance CNVs should be "excluded".

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23) In my service, when a low penetrance variant explains the proband's phenotype, clinicians offer testing to parents but not to other family members.

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24) In my service, when a low penetrance variant explains the proband's phenotype, clinicians offer pre-implantation genetic diagnosis.

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25) Whether to disclosure variants of unknown/uncertain clinical significance to parents should be discussed in a national panel of experts.

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26) In our service, all findings, including variants of uncertain significance or low penetrance, are disclosure regardless of the context.

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27) In my service, when a low penetrance variant explains the proband's phenotype, clinicians offer invasive prenatal diagnosis in future pregnancies.

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28) The laboratory should disclose all findings, regardless of their clinical significance, even in prenatal cases.

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- 29) The laboratory should not disclose results of clinically uncertain significance (low penetrance), even in prenatal cases.
 1 2 3 4 5
- 30) In my service, when a low penetrance variant explains the proband's phenotype, clinicians offer testing to parents and all family members who wish to be tested. 1 2 3 4 5
- 31) When a low penetrance variant explains the proband's phenotype, clinicians should not offer pre-implantation genetic diagnosis.
 1 2 3 4 5
- 32) When a low penetrance variant explains the proband's phenotype, clinicians should offer testing to parents but not to other family members. $1\ 2\ 3\ 4\ 5$

(Some questions adapted from the questionnaire in the article Shkedi-Rafid, S., 2016)