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Munich, aa/aa/aaaa

## **OPINION OF PARENTAGE**

**xx / yy**

**Opinion-No. 000-2016**

Re: Opinion concerning parentage of the child  
**xx, DOB bb/bb/bbbb**

Reference: Order of analysis from aa/aa/aaaa

The molecular genetic opinion of parentage regarding the following questions was performed impartially and in all conscience:

1. can paternity of Mr. yy to the child xx be excluded?
2. which plausibility of paternity is calculated in case of non-exclusion?

Following persons were included in the opinion:

<b>Role</b>	<b>Name</b>	<b>Date of birth</b>
Alleged Father	yy	cc/cc/cccc
Child	xx	bb/bb/bbbb
Mother	zz	dd/dd/dddd

#### Withdrawal of blood samples and proof of identity

The blood samples/buccal swabs of the persons concerned (xx, yy, zz) were sent to the synlab MVZ Humane Genetik München by the xyz. The samples arrived on aa/aa/aaaa.

Proof of identity of yy and zz was performed by providing valid passports (yy: Passport Nr. KX0000, zz: Passport Nr. KX1111). Proof of identity of xx was performed by providing a birth certificate (Nr. 33333).

#### Report

Analysis was performed according to professional rules. Results are presented in the following table.

According to the inheritance of the examined STR polymorphisms and due to the observed mother-child-constellations of zz and xx the following paternal STR polymorphisms are essential:

Allele	*12	of the D1S1656 polymorphism
Allele	*14	of the D6S1043 polymorphism
Allele	*11	of the D13S317 polymorphism
Allele	*9	of the D16S539 polymorphism
Allele	*16	of the D18S51 polymorphism
Allele	*19	of the D2S1338 polymorphism
Allele	*10	of the CSF1PO polymorphism
Allele	*9	of the Penta D polymorphism
Allele	*9.3	of the TH01 polymorphism
Allele	*16	of the vWA polymorphism
Allele	*30	of the D21S11 polymorphism
Allele	*9	of the D5S818 polymorphism
Allele	*13	of the D8S1179 polymorphism
Allele	*20	of the D12S391 polymorphism
Allele	*14	of the D19S433 polymorphism

Mr. yy is carrier of all the postulated paternal STR alleles and therefore cannot be excluded from paternity to the child xx.

### Biostatistical calculation

Comprehensive statistical calculation of the findings from child xx, mother zz and putative father yy results in the following probability of paternity:

$$P = 99,9999998\%$$

prior probability 0,50

CEM: 1,1111

MEC >99,999%

Statistical calculation of probability of paternity was performed by program "GenoProof 3" (Version 3.0.3, Qualitype AG).

Analysis was performed with the kit "PowerPlex 21 System" from Promega enterprise.

### Conclusion

The analysis of 20 DNA microsatellite markers in the opinion states that Mr. yy cannot be excluded from the paternity to the child xx.

This corresponds to the verbal predicate:

**"Paternity practically proven."**

Paternity of another man - not related to Mr. yy - is excluded.

Dr.med. Dr.rer.nat. Claudia Nevinny-Stickel  
Human Geneticist

Claudia Bayerl  
Certified Biologist

Nicola Trüg  
MTLA

**Table of results xx / yy:**

<b>Role</b>	<b>Name</b>	<b>Date of birth</b>
Alleged Father	yy	cc/cc/cccc
Child	xx	bb/bb/bbbb
Mother	zz	dd/dd/dddd

**DNA-microsatellite-polymorphisms (STR-systems)**

<b>Marker</b>	<b>yy (Alleged Father)</b>		<b>xx (Child)</b>		<b>zz (Mother)</b>	
CSF1PO	10	11	10	11	11	11
D12S391	18	20	20	22	21	22
D13S317	11	11	11	12	12	12
D16S539	9	13	9	12	12	13
D18S51	14	16	12	16	12	14
D19S433	14	14.2	13	14	13	15
D1S1656	12	19.3	12	15.3	15.3	17.3
D21S11	28	30	30	32	27	32
D2S1338	19	25	19	25	19	23
D3S1358	16	17	15	17	15	16
D5S818	9	12	9	10	10	13
D6S1043	14	14	12	14	12	12
D7S820	8	11	10	11	10	11
D8S1179	12	13	12	14	10	14
FGA	23	26	22	26	20	22
Penta D	9	10	9	10	10	13
Penta E	11	14	13	14	13	14
TH01	6	9.3	7	9.3	7	9
TPOX	8	8	8	12	8	12
vWA	16	18	16	17	17	19