



Thaw and Culture Details

Cell Line Name	CBiPS-LZ6-2-PCBC
WiCell Lot Number	DB66977
Provider	Johns Hopkins University - Dr. Elias Zambidis
Banked By	National Heart, Lung and Blood Institute Progenitor Cell Biology Consortium (NHLBI PCBC)
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 2 wells of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results. The Provider recommends only dispase passaging.
Culture Platform	Feeder Independent
	Medium: mTeSR™1
	Matrix: Matrigel®
Protocol	WiCell Feeder Independent mTeSR™1 Protocol
Passage Number	p20 These cells were cultured for 19 passages prior to freeze. The Provider adds +1 to the passage number at freeze to best represent what the overall passage number of the cells at thaw. Plated cells at thaw should be labeled passage 20.
Date Vial	19-July-2016
Vial Label	SC14-070 p20 19Jul2016 RAS
Biosafety and Use Information	Appropriate biosafety precautions should be followed when working with these cells. The end user is responsible for ensuring that the cells are handled and stored in an appropriate manner. WiCell is not responsible for damages or injuries that may result from the use of these cells. Cells distributed by WiCell are intended for research purposes only and are not intended for use in humans.

Testing Performed by WiCell


Test Description	Test Provider	Test Method	Test Specification	Result
Karyotype by G-banding	WiCell	SOP-CH-003	Expected karyotype	See Report
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	Recoverable attachment after passage	Pass
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Defines STR profile of deposited cell line	Pass
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-CH-044	Negative	Pass



Testing Reported by Provider

The Provider stated that some or all of the additional analyses listed below may have been performed for this cell line. For more information, publication and Synapse links, where available, are provided on the cell line specific web page on the WiCell website.

- RNA-Seq
- Teratoma representative of all three embryonic germ layers identified in all tumors with histopathological analysis
- SNP microarray
- Immunostaining analysis to confirm pluripotency and OCT4 to evaluate the presence of undifferentiated PSC
- mRNA, miRNA, and methylation profiling
- Genomics characterization
- Flow Cytometry (SSEA-1, SSEA-4, Tra 1-61, Tra 1-80, CD9, OCT-4)

Approval Date	Quality Assurance Approval
02-July-2019	 <p>7/10/2020 X_AA AA Quality Assurance Signed by: Armitz, Andy</p>



Chromosome Analysis Report: 076974

Date Reported: Tuesday, June 11, 2019

Cell Line: CBiPS-LZ6-2-DB66977 14682

Passage#: 23

Date of Sample: 5/30/2019

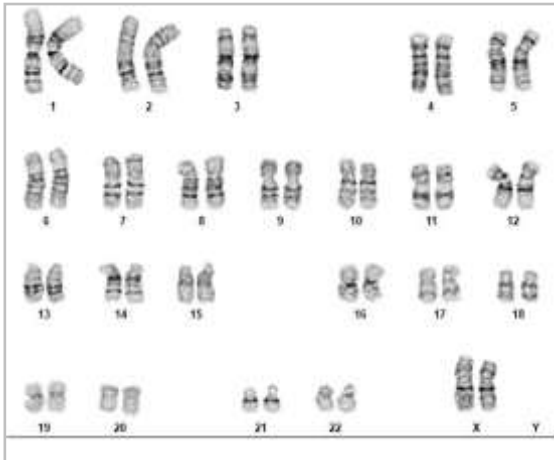
Specimen: Human IPS

Results: 46,XX

Cell Line Sex: Female

Reason for Testing: Lot Release Testing

Investigator: [REDACTED], WiCell



Cell: 15

Slide: G01

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 9

Total Karyogrammed: 5

Band Resolution: 425 - 475

Interpretation:

This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution.

Completed by: [REDACTED]

Reviewed and Interpreted by: [REDACTED], PhD, FACMG

Date: _____ **Sent By:** _____ **Sent To:** _____ **QC Review By:** _____

Limitations: This assay allows for microscopic visualization of numerical and structural chromosome abnormalities. The size of structural abnormality that can be detected is >3-10Mb, dependent upon the G-band resolution obtained from this specimen. For the purposes of this report, band level is defined as the number of G-bands per haploid genome. It is documented here as "band level", i.e., the range of bands determined from the four karyograms in this assay. Detection of heterogeneity of clonal cell populations in this specimen (i.e., mosaicism) is limited by the number of metaphase cells examined, documented here as "# of cells counted".

This assay was conducted solely for listed investigator/institution. The results of this assay are for research use only. Unless otherwise mutually agreed in writing, the services provided to you hereunder by WiCell Research Institute, Inc. ("WiCell") are governed solely by WiCell's Terms and Conditions of Service, found at www.wicell.org/privacyandterms. Any terms you may attach to a purchase order or other document that are inconsistent, add to, or conflict with WiCell's Terms and Conditions of Service are null and void and of no legal force or effect.



HISTOLOGY - IHC - MOLECULAR - IMAGING

Department of Pathology and Laboratory Medicine
TRIP Laboratory (Molecular)
<https://research.pathology.wisc.edu/trip-home/>
(608) 265-9168

Short Tandem Repeat Analysis



characterization@wicell.org
(608) 316-4145

Sample Report:

14682-STR

Sample Name on Tube: 14682-STR

62.1 ng/μL, (A260/280=1.95)

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute

Quality Assurance Department

Receive Date: 06/03/19

Report Sent: 06/07/19

Assay Date: 06/04/19

File Name: STR 190605 wmr

Report Date: 06/07/19

STR Locus	STR Genotype Repeat #	STR Genotype
FGA	16-18,18.2,19,19.2,20,20.2,21,21.2,22, 22.2, 23, 23.2, 24, 24.2, 25, 25.2, 26-30, 31.2, 43.2, 44.2,45.2, 46.2	Identifying information has been redacted to protect donor confidentiality. If more information is required, please, contact WiCell's Technical Support .
TPOX	6-13	
D8S1179	7-18	
vWA	10-22	
Amelogenin	X,Y	
Penta_D	2.2, 3.2, 5, 7-17	
CSF1PO	6-15	
D16S539	5, 8-15	
D7S820	6-14	
D13S317	7-15	
D5S818	7-16	
Penta_E	5-24	
D18S51	8-10, 10.2, 11-13, 13.2, 14-27	
D21S11	24,24.2,25,25.2,26-28,28.2,29,29.2, 30, 30.2,31, 31.2,32,32.2,33,33.2, 34,34.2,35,35.2,36-38	
TH01	4-9,9.3,10-11,13.3	
D3S1358	12-20	

Results: Based on the 14682-STR cells submitted by WiCell QA dated and received on 06/03/19, this sample (Label on Tube: 14682-STR) defines the STR profile of the human cell line CBiPS-LZ6-2 comprising 28 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human CBiPS-LZ6-2 cell line were detected and the concentration of DNA required to achieve an acceptable STR genotype (signal/ noise) was equivalent to that required for the standard procedure (~1 ng/amplification reaction) from human genomic DNA. This result suggests that the 14682-STR sample submitted corresponds to the CBiPS-LZ6-2 cell line and was not contaminated with any other human cells or a significant amount of mouse feeder layer cells.

Sensitivity: Sensitivity limits for detection of STR polymorphisms unique to either this or other human cell lines is ~2-5%.

X *RMB*

Digitally Signed on 06/07/19

██████████, BA
TRIP Laboratory, Molecular

X *WMR*

Digitally Signed on 06/07/19

██████████, PhD, Director / Co-Director
UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

Testing was accomplished by analysis of human genetic polymorphisms at STR loci. This methodology has not yet been approved by the FDA and is for investigational use only.

Acknowledge TRIP in your publications, posters & presentations. For details, see: <https://research.pathology.wisc.edu/acknowledging-trip/>
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Native Product Sterility Report



WiCell
504 S Rosa Road, Rm 101
Madison, WI 53719

SAMPLE #: 19052193
DATE RECEIVED: 23-May-19
TEST INITIATED: 03-Jun-19
TEST COMPLETED: 17-Jun-19

SAMPLE NAME / DESCRIPTION:			
	STAN011i-123-1	DB31129	14728
	STAN012i-123-2	DB31135	14729
	MCW066i-U2368	WB67169	14730
	MCW049i-40001630	WB67173	14731
	MCW083i-40000695	WB67174	14732
	MCW092i-U2390	WB67175	14733
	MCW094i-U7120	WB67177	14734
	MCW095i-U2311	WB67185	14735
	MCW088i-40000442	WB67186	14736
	MCW089i-40000312	WB67187	14737
	MCW080i-U2236	WB67188	14738
	CBiPS-6.2	DB66959	14739
	CBiPS-19.11	DB66960	14740
	CBiPS-6.13	DB66961	14741
	CBiPS-E12C1	DB66962	14742
	CBiPS-E17C6	DB66963	14743
	CBiPS-LZ6-1	DB66976	14744
	CBiPS-LZ6-2	DB66977	14745
	CBiPS-LZ6-12	DB66978	14746
	Sendai-9-1	DB66967	14747
	CBiPS-LZ6+3	DB66979	14748
	029 iPS clone 4	DB66975	14749
	retro-20.1	DB66966	14750
	NiPSC	DB66965	14751
	SCR2101i	DB42034	14752
	SCR2115i	DB42040	14753
	SCR2208i	DB42043	14754*

UNIQUE IDENTIFIER: NA

Native Product Sterility Report



TEST RESULTS:

# Tested	# Positives (Growth)	- Control
30	0	2 Negatives

TEST SUMMARY:

# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
30	TSB	40	20-25	14
30	FTG	40	30-35	14

REFERENCE:

Processed according to LAB-003: Sterility Test Procedure

PD #:

000053

TEST METHODOLOGY:

USP - Direct Transfer

COMMENTS:

Sample #19052193

"Reported as" per packing slip

*SCR2210i DB42046 14755
SCR2305i DB42054 14756
WC044i-IVF15-36 WB67190 14757

REVIEWED BY

DATE

20 Jun 19

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. This test report shall not be reproduced, except in full, without prior written approval. Liability is limited to the costs of the tests. Results applied to samples as received.



Mycoplasma Assay Report

PCR-based assay performed by WiCell

Lot Release Testing

21May19

FORM SOP-CH-044.03

Version B Edition 01

#	Sample Name	Result	Comments/Suggestions
1	CBiPS-LZ6-2-DB66977 14682	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
2	Positive (+) Control	Positive	
3	Negative (-) Control	Negative	

Reported by: Alex Paguirigan, Assistant Cell Culture Specialist

Reviewed by: Katie Remondini, Cell Culture Specialist

Date: _____ **Sent By:** _____ **Sent To:** _____

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A gel image is available upon request.

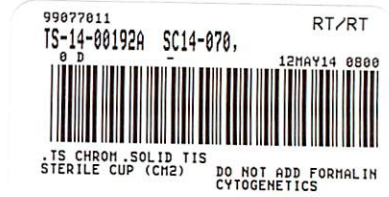


Testing Reported by Provider

The testing reports following this placeholder are described on the certificate of analysis found in the beginning of this packet.

TISSUE CHROMOSOME ANALYSIS FINAL REPORT

Collection Date and Time: 5/12/2014 8:00 AM ✓
Laboratory Accession #: TS-14-00192 ✓
Ordering Physician: Dr. Lutzko/ Stacy Bush ✓
Received Date and Time: 5/12/2014 1:16 PM ✓
Hospital # / Location: CCHMC ✓



INTERPRETATION: NORMAL ✓

G-BANDED KARYOTYPE: 46,XX ✓

INDICATIONS: Stem Cell Research ✓
SPECIMEN INFORMATION: Induced Pluripotent Stem Cells ✓

GROWTH TIME: 1 day(s) ✓
MODAL CHROMOSOME # : 46 ✓
of cells COUNTED : 20 ✓
of cells SCORED : 0 ✓
of cells ANALYZED : 5 ✓
of KARYOTYPES : 2 ✓
GTG Band Resolution: 475 ✓
Quality: Good ✓

TECHNICIAN(S): SCH4TC SCH4TC ✓
DATE ANALYZED: 5/20/2014 1:10 PM ✓

COMMENTS:

SUMMARY: A normal female karyotype of 46,XX. No chromosomal abnormality was demonstrable at this level of resolution. ✓

all
5/20/14
AMM

Children's Hospital Medical Center Cincinnati, Ohio



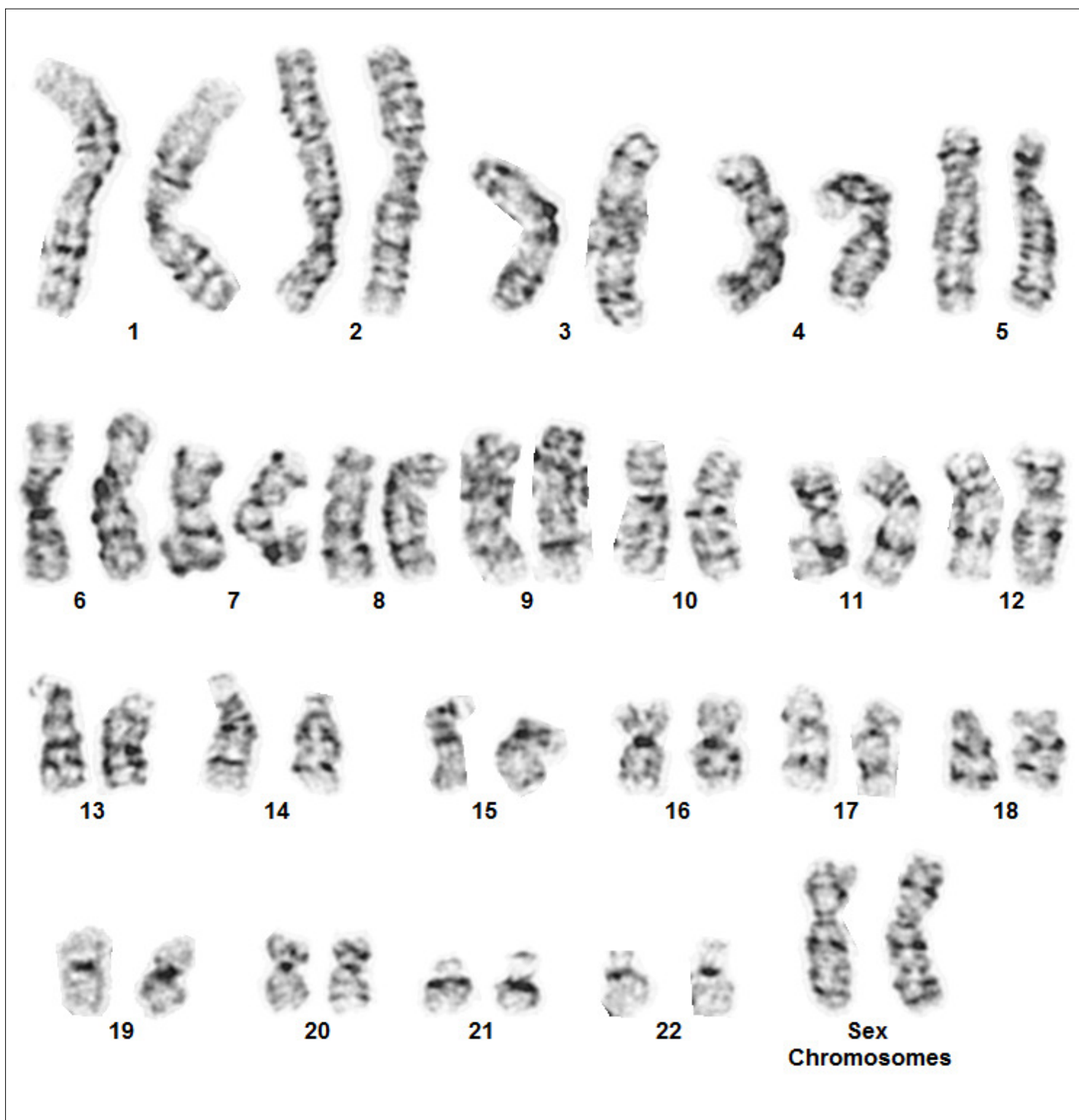
Case: TS-14-00192 Slide: 5/13, slide 2 Cell: 69.5x17

Patient name: SC14-070

Date of birth:

Date: 5/12/2014

Children's Hospital Medical Center Cincinnati, Ohio



Case: TS-14-00192 Slide: 5/13, slide 2 Cell: 84.6x19

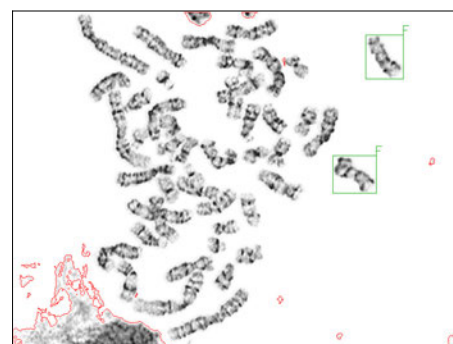
Patient name: SC14-070

Date of birth:

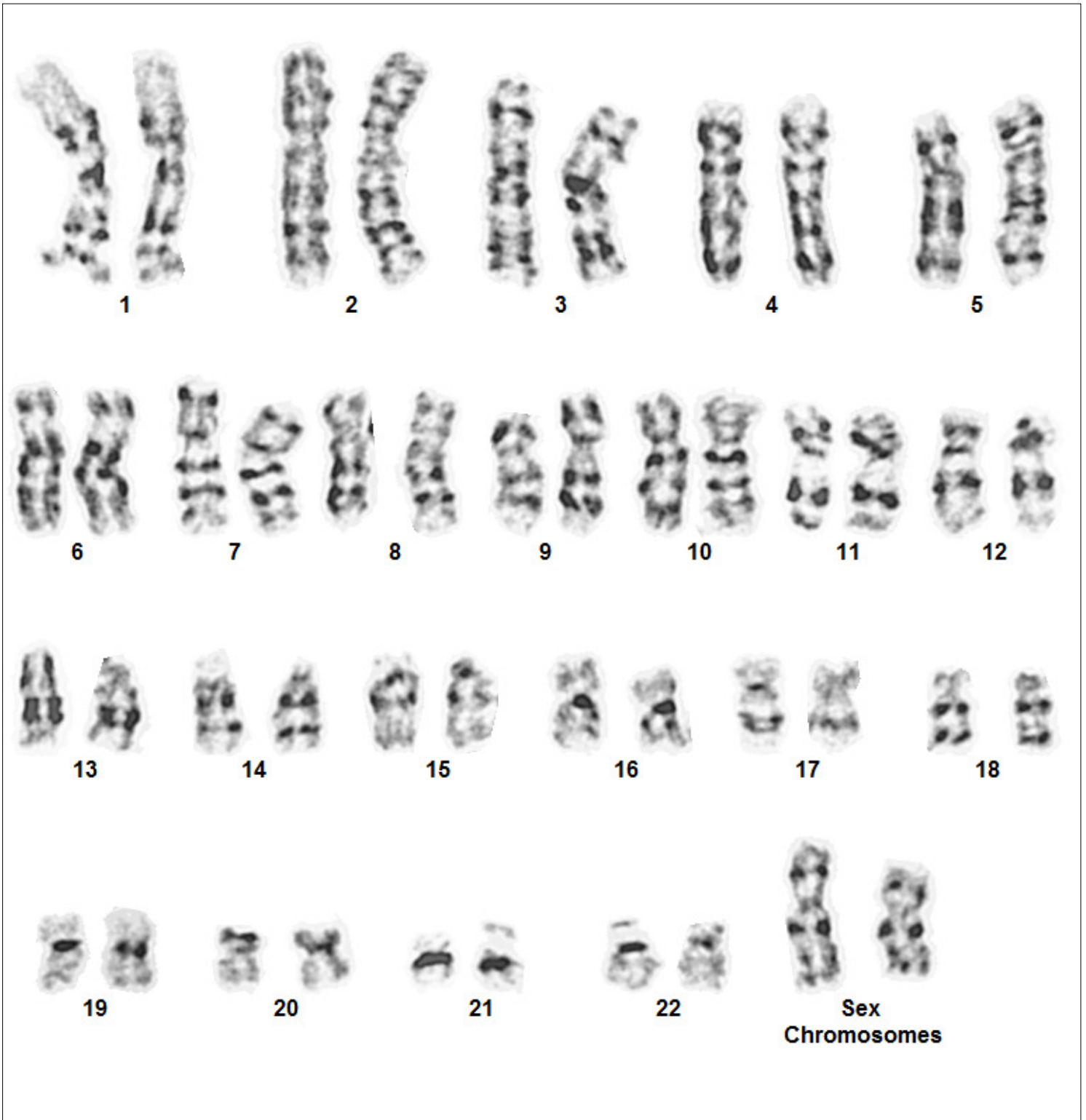
Result: 46,XX

Technologist: sch4tc

Date: 5/12/2014



Children's Hospital Medical Center Cincinnati, Ohio



Case: TS-14-00192 Slide: 5/13, slide 3 Cell: 95.5x3.2

Patient name: SC14-070

Date of birth:

Result: 46,XX

Technologist: sch4tc

Date: 5/12/2014

