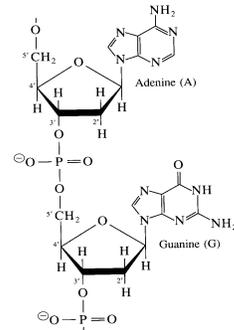
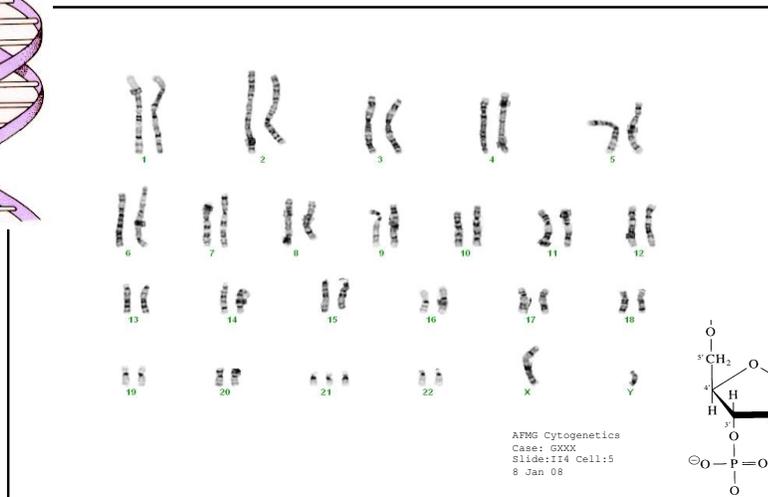
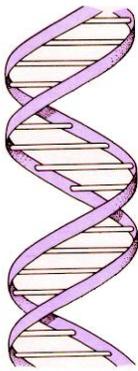


Air Force Medical Genetics Center

Clinic and Laboratory Pamphlet



**301 Fisher Street, Room GG-700
Keesler AFB MS 39534**

AIR FORCE MEDICAL GENETICS (AFMG) CENTER

81ST MEDICAL GROUP (MDG)

81ST MEDICAL OPERATIONS SQUADRON GENETICS (81 MDOS/SGOU)

301 Fisher Street

Keesler Air Force Base MS 39534-2519

Quick Reference Phone List:

For DSN calls, the prefix is 591.

Clinic	(228) 376-3920/3389
Noncommissioned Officer in Charge (NCOIC)	(228) 376-3226
Genetics Laboratory	(228) 376-3920/3389
AFMG E-mail	81mdg.genetics@us.af.mil

**DEPARTMENT OF THE AIR FORCE
81ST MEDICAL GROUP (AETC)
KEESLER AIR FORCE BASE, MS 39534-2519**

**MEDICAL GROUP PAMPHLET 44-130
27 SEPTEMBER 2011**

Medical



***MEDICAL GENETICS PAMPHLET**

ACCESSIBILITY: Publications and forms are available digitally on the 81st Medical Group website at <https://keews9022p3.area52.afnoapps.usaf.mil/default.aspx>

RELEASABILITY: There are no releasability restrictions on this publication.

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Supersedes MDGP 44-130, 9 July 2009

Certified by: 81 MDG/CD (Col David W. Garrison)
Pages: 18

This publication implements Air Force Policy Directive (AFPD) 44-1, *Medical Operations*, and outlines the services provided by the Air Force Medical Genetics Center laboratory. Procedures for test request and sample shipping are provided. Test-specific instructions are also provided where applicable. This guide is for use by providers, nurses, and laboratory officers from all local or referring bases using the service in support of patient care. Adherence to the guidance in this pamphlet will optimize service. It is intended for use as a valuable source of information for the 81st Medical Group (MDG) personnel and referring units and facilities in the Department of Defense (DoD). See Attachment 1 for a glossary of references and supporting information. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afrims/afrims/afrims/rims.cfm>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR). Use Air Force (AF) Form 847, *Recommendation for Change of Publication*, for requesting a resolution to a conflict of information from one publication against another. Route the form through the appropriate functional's chain of command.

The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

This instruction requires collecting and maintaining information protected by the Privacy Act of 1974 authorized by 10 United States Code (U.S.C.) 55, *Medical and Dental Care*; 10 U.S.C. 8013, *Secretary of the Air Force*; and E.O. 9397. System of records notice F044 AF SG D, *Automated Medical/Dental Record System*, and F044 AF SG E, *Medical Record System*, applies.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. Changes consist of updating Medical Genetics Center contact information to include physical location, mailing

address, telephone numbers, points of contact, and hours of operations. Comparative Genomic Hybridization (CGH) testing information was added. Updated format throughout, added the use of AF Form 847, and updated attachment 1.

Section A—Introduction

1. Mission.

1.1. To provide focused genetic services relating to patient care/counseling, provider education, and laboratory testing in support of the Air Force Medical Service Mission and the military family.

2. Scope.

2.1. The Air Force Medical Genetics Center laboratory performs specific cytogenetic and molecular Deoxyribonucleic Acid (DNA) laboratory tests for DoD medical facilities worldwide. The specific tests available are detailed below.

3. Organization.

3.1. Genetics Clinic: Provides clinical patient evaluation and counseling, prenatal diagnostic care, and consultation services to other providers.

3.2. Laboratory Services: Includes the Cytogenetics Laboratory and the Molecular (DNA) Diagnostics Laboratory.

4. Laboratory Accreditation.

4.1. The Medical Genetics Laboratory is inspected and accredited by the College of American Pathologists (CAP) in accordance with Air Force Instruction (AFI) 44-102, *Medical Care Management*. The CAP accreditation number is 1610805. Additionally, the laboratory is accredited by the DoD Clinical Laboratory Improvement Program (CLIP). The CLIP accreditation number is DoD3953402.

5. Hours of Operation.

5.1. The laboratory is staffed Monday through Friday from 0700 to 1700 Central Standard Time (CST). The laboratory is not open on weekends or holidays.

5.2. Clinic hours vary and appointments are made by referral only.

6. Location.

6.1. The Medical Genetics Center is located in section G of the ground floor of Building 0468, 81st Medical Group, Keesler Air Force Base (AFB), Mississippi (MS). Its location and operations are independent of the 81 MDG Clinical Laboratory.

7. Laboratory Information System (LIS).

7.1. The genetics laboratory utilizes the Laboratory Information System (LIS) module within Composite Health Care System (CHCS) for all order processing, specimen processing, and results management. Utilizing laboratory interoperability (lab interop), all local and remote sites must order tests and receive results via CHCS. For information on establishing and/or validating lab interop, email 81mdg.genetics@us.af.mil or call DSN 591-5582.

7.2. LIS and CHCS/AHLTA support for a particular patient is triggered by an order entered into the system. The system is designed for provider order entry, but will also support order entry by other authorized users.

8. Genetics Test Orders.

8.1. In-House: All orders by in-house providers must be entered into CHCS/AHLTA.

8.2. Specimens from outside facilities: The laboratory accepts specimens from all military treatment facilities with LIS interoperability. This is an interface with CHCS which allows electronic transfer and sharing of clinical, administrative and laboratory data between CHCS sites. Specimens may not be processed unless interoperability is established and validated with Genetics. For information on your validation status or how to set up interoperability with the genetics laboratory, call DSN 591-5582/3389.

8.3. Order entry for genetic tests has been pre-configured to generate a series of questions necessary for accurate analysis and results reporting. All information requested must be correctly entered into the system when prompted or the order will not be accepted.

8.3.1. *The provisional diagnosis/clinical indication is absolutely essential and must be addressed during order entry.* Specimens may be processed and/or prioritized differently, depending on the diagnosis. In some cases, the version of the test performed depends on the indication as does the test result.

8.3.2. For amniotic fluid specimens, include the gestational age and date of last menstrual period.

9. Specimen Collection.

9.1. In-House: Specimens are not collected by genetics personnel. Specimens collected by the nursing unit, physician, or the clinical laboratory personnel are delivered to the Genetics Center Monday through Friday from 0700 to 1700. Specimens are kept at room temperature and

delivered to the center as soon as possible after drawing. Refer to the specimen requirements listed under each lab section.

9.2. Referral Specimens: Refer to the specimen requirements listed under each lab section. Follow the packing and shipping instructions listed below.

10. Specimen Rejection Criteria.

10.1. Improperly packed specimens (e.g., frozen, leaking).

10.2. Grossly hemolyzed or clotted specimens.

10.3. Specimens for cytogenetic tests over four (4) days old will be rejected.

10.4. Specimens for molecular DNA tests will be rejected if not received within 10 days from collection date.

10.5. Specimens that are improper for the test (e.g., serum shipped for chromosome study).

10.6. Tissue samples that are leaking fluid.

10.7. Unlabeled, mislabeled, or illegibly labeled specimens when positive patient identification cannot be guaranteed.

10.8. Wrong collection tube (e.g. purple top versus green).

10.9. Specimens that are rejected, are accessioned and reported in CHCS as not tested, with the reason for the rejection stated. The shipping lab is notified by telephone.

11. Specimen Packaging/Shipping.

11.1. All specimen transport containers must be labeled with appropriate biohazard warnings to meet Department of Transportation, International Air Transport Association, and other applicable shipping requirements. Below are packing instructions for all referral specimens:

11.1.1. The specimen container should be placed in a plastic biohazard bag and sealed.

11.1.2. Cushion the specimen in a styrofoam box. Seal the styrofoam box with tape.

11.1.3. Place the styrofoam box in a cardboard box for shipping.

11.1.4. Ship at room temperature.

11.2. Ship all specimens to arrive by overnight delivery.

11.3. Please **DO NOT** use regular mail or military transportation. If priority mail is the only method of shipping, clearly mark in large print that the package contains a biological sample.

11.4. Please **DO NOT** ship specimens FedEx **Collect**. These packages will not be accepted.

11.5. Please **DO NOT** ship specimens to arrive on Saturday, Sunday, or Holidays. The laboratory is not staffed on these days.

11.6. Separate shipping. **DO NOT** ship genetic specimens with other clinical or pathology specimens going to the 81 MDG Clinical Laboratory. The genetics laboratory is not located in the same area and doing so will delay receipt of the specimens in the proper laboratory.

11.7. Shipping Address: Air Force Medical Genetics Center
81 MDG/SGOU
301 Fisher Street, Room GG700
Keesler AFB MS 39534-2519

12. Specimen Labeling.

12.1. All specimens received for testing must be properly labeled to include patient's full name, full social security number, family member prefix (FMP), date of birth, and date collected.

12.2. All specimens must be accompanied by a CHCS-generated shipping list. Specimens and shipping list should correspond. If there are any discrepancies, the submitting laboratory will be notified.

13. Turn-Around Times.

13.1. Turn-around times are dependent upon the specimen type and test. In some cases, genetic tests take 2 - 4 weeks of laboratory processing to complete. Attempts will be made to address priority processing requests when the test procedure allows for faster processing. Please specify reason for priority request via CHCS/AHLTA.

13.2. We will attempt to notify the submitting provider with urgent case results if the physician's name, telephone, and FAX number are included on the test request/order.

13.3. All studies are reviewed by a geneticist prior to release and reporting of test results. All tests are reported through CHCS. Results are not faxed to ordering providers. Results can be printed from CHCS by the referring laboratory and faxed to their ordering providers if needed. A report of abnormal cytogenetic cases is also mailed to the referring provider. This copy should be placed in the patient's outpatient medical record.

13.4. Please **DO NOT** give patients our phone number to check on the status of results. Results are **ONLY** given to the referring physician and/or laboratory.

13.4.1. Providers wishing to discuss the interpretation of genetic test results are encouraged to contact the United States Air Force (USAF) Medical Genetics Center to talk to a geneticist or genetics counselor. For information call 376-5611.

13.4.2. Patients desiring additional counseling about their genetic tests results should be referred to the Air Force Medical Genetics Clinic or to a local geneticist.

Section B—Cytogenetics

14. General Information.

14.1. Cytogenetic specimens should be received within 24 - 48 hours after collection, but will be accepted up to four (4) days from the collection date. Bone marrow specimens should not be shipped to arrive on Friday (requires 24-hour culture).

14.2. Cytogenetic processing priority is given to newborns, amniotic fluid, bone marrow, and other emergent cases.

14.3. Normal karyotype is 46XX or 46XY.

15. Cytogenetic Tests and Specimen Requirements. (acronyms found in attachment I)

TEST	SPECIMEN	COMMENTS
COMPARATIVE GENOMIC HYBRIDIZATION	3 - 5 milliliter (ml) Whole Blood Ethylenediaminetetraacetic Acid (EDTA)	Available ONLY to labs with an established funding mechanism. Not available for prenatal Dx or bone marrow studies. Due to the cost of CGH, Chromosome Analysis is recommended prior to consideration of CGH.
CHROMOSOME STUDIES (Amniotic Fluid)	20 - 30 ml Amniotic Fluid in sterile container.	Keep at room temperature. Limited submission policy. Call for availability.
CHROMOSOME STUDIES (Blood)	3 - 5ml Whole Blood in Green Top (Sodium Heparin).	Keep at room temperature. <i>DO NOT</i> use lithium heparin tube.
CHROMOSOME STUDIES (Bone Marrow)	Bone Marrow aspirate (0.5 - 2 ml) drawn in sodium heparin prepared syringe.	Expel all heparin from the syringe before collecting sample. Remaining amount is sufficient for anticoagulation. Avoid shipping to arrive on Friday or on the day before a holiday.

TEST	SPECIMEN	COMMENTS
CHROMOSOME STUDIES (Intrauterine Fetal Demise (IUFD))	Specimen of choice is Amniotic Fluid . If not available, place a small portion of placenta or products of conception in tissue culture medium or Ringer's lactate. If neither is available, use thioglycollate (increases risk of contamination).	Send chorionic villi if demise is less than 48 hours. Additionally, send cartilage, diaphragm, dura matter or sternum. <i>DO NOT</i> put in formalin.
CHROMOSOME STUDIES (Skin)	Place Skin Punch Biopsy in tissue culture medium or Ringer's lactate. If neither is available, use thioglycollate (increases risk of contamination).	Clean area to be biopsied vigorously with gauze saturated with 70% isopropyl alcohol or acetone. Avoid iodine-containing disinfectants. Allow skin to dry before biopsy.
FLUORESCENT IN SITU HYBRIDIZATION (FISH): Wolf-Hirschhorn SRY Cri-du-Chat Prader-Willi/Angelman Williams DiGeorge Smith-Magenis Miller-Dieker/ Lissencephaly Kallmann Steroid Sulfatase	3 - 5 ml Whole Blood in Green Top (Sodium Heparin).	Call for availability.
Prenatal Aneuploidy FISH	3-5 ml Amniotic Fluid	Tests for common aneuploidies

Section C—Molecular Genetics

16. Patient Consent.

16.1. Informed consent is required for DNA tests. Documentation that consent was obtained from the patient or parent/guardian must be indicated when the test is ordered or the test will not be performed. It is the provider's responsibility to obtain and document patient consent in the patient's medical record. Copies of signed consent forms should not be mailed to the laboratory.

17. Specimen Requirement.

17.1. Acceptable specimens for molecular genetics tests are:

17.1.1. 3 - 5 ml whole blood in purple top (EDTA).

17.1.2. Amniotic fluid or cultured cells from amniocentesis. These samples must be viable on receipt and should be shipped in accordance with the cytogenetics shipping requirements above.

Note: All amniotic fluid samples must be accompanied by a purple top (EDTA) tube of the mother's blood. Under no circumstances can the test be resulted until the mother's blood is received and processed.

17.1.3. Extracted DNA. All extracted DNA samples will be evaluated on receipt for DNA quality and concentration. The submitting lab will be notified if samples are of insufficient quality or quantity for processing.

17.1.4. Cultured or uncultured tissue. Successful testing is highly dependant on the quality/age of the sample received. Best results are obtained from viable tissue that can be cultured on receipt. Shipping should be in accordance with the cytogenetics shipping requirements noted above.

17.2. Specimens for DNA testing should be received within 72 hours of being obtained, but will be accepted up to 10 days from the collection date. While it is true that DNA testing can sometimes be performed on mummies that are thousands of years old, the faster the sample is processed, the more likely it is that a result will be obtained.

18. Cystic Fibrosis (CF).

18.1. Cystic fibrosis testing is conceptually divided into three categories and the test result is highly dependent on the category of patient/indication for the test.

18.1.1. Routine CF carrier screening on individuals who have no symptoms or concerns suggestive of cystic fibrosis and no family history of cystic fibrosis.

18.1.1.1. Screening results are highly dependent on the patient's ethnicity (not the patient's spouse's ethnicity) and test requests should include as accurate a description of ethnicity as possible.

18.1.1.2. Carrier screening is available to Air Force facilities and Army or Navy facilities who have a funding agreement with the Air Force. Carrier screening cannot be performed on samples received from non-Air Force facilities that do not have a mechanism in place to cover the cost of the testing.

18.1.1.3. Carrier screening is not available for fetuses or children.

18.1.2. Individuals who have relatives with cystic fibrosis or known carriers of cystic fibrosis.

18.1.2.1. Genetic counseling is highly recommended for these individuals prior to testing. Test results depend on an accurate description of the relationship to the patient, an accurate description of the diagnosis in the affected relative and, when available, knowledge of the mutations that have been found in the family. This information is best obtained and communicated by a genetics professional.

18.1.2.2. A copy of a pedigree should be provided with these test requests and can be faxed to the laboratory, DSN 591-0168 (228-376-0168).

18.1.3. Patients with symptoms suggestive of a diagnosis of cystic fibrosis.

18.1.3.1. A description of the symptoms and results of sweat chloride testing will aid in test interpretation for these patients. These specifics will dictate the test performed in some cases.

19. Genetic Testing of Children/Minors.

19.1. Diagnostic testing of children suspected to have a genetic disease will be performed.

19.2. **Genetic testing of asymptomatic minors will not generally be performed.** This includes both carrier testing and presymptomatic testing. Exceptions are where there is a demonstrated benefit to the minor child of knowing the results of a genetic test.

19.3. The USAF Medical Genetics Center follows recommendations of the American College of Medical Genetics, National Society of Genetic Counselors and others with respect to genetic testing in minors. A paper summarizing these recommendations and the reasons behind them is available from the Center.

19.4. Please contact the laboratory to discuss individual cases. Genetic testing of minors will be performed for compelling clinical indications which must be pre-approved by the laboratory director.

20. Molecular Genetics Tests. (acronyms can be found in attachment I)

TEST	SPECIMEN	COMMENTS
CF MUTATION ANALYSIS	3 - 5 ml Whole Blood (EDTA)	Testing for the 32 most common CF mutations. Result includes recommendation for additional testing, if indicated.
	Cultured Amniocytes	<i>INDICATION:</i> confirmed clinical diagnosis (positive sweat chloride), suspected clinical diagnosis.

TEST	SPECIMEN	COMMENTS
CF PRENATAL SCREENING	3 - 5 ml Whole Blood (EDTA)	ACMG/ACOG recommended test panel for screening healthy individuals with no family history. <i>INDICATION:</i> prenatal/presymptomatic diagnosis, carrier status (family history of CF), carrier status (partner at risk for being a carrier). <i>CONTRAININDICATION:</i> minors tested for carrier status.
CF 5T ALLELE	3 - 5 ml Whole Blood (EDTA)	Reflex Testing of intron 8 poly T tract only – DOES NOT INCLUDE ANY CF MUTATIONS.
CONNEXIN 26/ CONGENITAL	3 - 5 ml Whole Blood (EDTA)	Sequencing of entire Connexin 26 coding region.
HEARING LOSS	Cultured Amniocytes	
DAZ GENE (Also known as AZFc)	3 - 5 ml Whole Blood (EDTA)	Includes AZFa and AZFb, and AZFc. Always performed as a panel with SRY.
FACTOR V LEIDEN	3 - 5 ml Whole Blood (EDTA)	Testing for R506Q mutation. Always performed as a panel with Factor II (Prothrombin). <i>INDICATION:</i> thrombophilia, recurrent SAB or fetal demise.
FRAGILE X SYNDROME	3 - 5 ml Whole Blood (EDTA)	Includes initial PCR test and reflex Southern, if indicated. <i>INDICATION:</i> mental retardation, diagnosis confirmation, prenatal diagnosis, maternal carrier status with suggestive family history.
Including: Fragile X PCR Fragile X Southern	Cultured Amniocytes	
FRIEDREICH ATAXIA	3 - 5 ml Whole Blood (EDTA)	<i>INDICATION:</i> suspected clinical diagnosis, presymptomatic diagnosis with known familial mutation. <i>CONTRAININDICATION:</i> presymptomatic diagnosis (minors).
HEREDITARY HEMOCHROMATOSIS	3 - 5 ml Whole Blood (EDTA)	Testing for the C282Y and H63D mutations. Testing is not available for minors <18 years of age. <i>INDICATION:</i> suspected or confirmed clinical diagnosis. <i>CONTRAININDICATION:</i> prenatal diagnosis, minors.

<u>TEST</u>	<u>SPECIMEN</u>	<u>COMMENTS</u>
HUNTINGTON DISEASE	3 - 5 ml Whole Blood (EDTA)	Testing for symptomatic individuals. Presymptomatic testing of family members requires additional paperwork. Call for details.
	Cultured Amniocytes	<i>INDICATION:</i> diagnosis confirmation, suspected clinical diagnosis, prenatal diagnosis, presymptomatic diagnosis with known familial mutation. <i>CONTRAINDICATION:</i> refusal to follow testing protocol for presymptomatic diagnosis, presymptomatic diagnosis in minors
METHYLENETETRA-HYDROFOLATE REDUCTASE (MTHFR)	3 - 5 ml Whole Blood (EDTA)	Testing for 677 C>T polymorphism.
MYOTONIC DYSTROPHY	3 - 5 ml Whole Blood (EDTA)	Suspected diagnosis. Prenatal testing available.
	Cultured Amniocytes	
PRADER- WILLI/ ANGELMAN SYNDROME (PWS/AS)	3 - 5 ml Whole Blood (EDTA)	Methylation-sensitive PCR.
	Cultured Amniocytes	<i>INDICATION:</i> neonatal hypotonia, diagnosis confirmation, prenatal diagnosis.
Includes: PWS/AS Deletion Testing PWS/AS Methylation PWS/AS Probe PWS/AS UPD		
PROTHROMBIN MUTATION	3 - 5 ml Whole Blood (EDTA)	Testing for 20210 G>A polymorphism. Always performed as a panel with Factor V Leiden.
Includes: Factor II		
RETT SYNDROME	3 - 5 ml Whole Blood (EDTA)	Sequencing of Exons 2/3/4 of the MECP2 gene. Accepted from Pediatric Neurology, Genetics, or Developmental Peds only.

<u>TEST</u>	<u>SPECIMEN</u>	<u>COMMENTS</u>
SEX DETERMINATION (SRY)	3 - 5 ml Whole Blood (EDTA)	Always performed as a panel with DAZ. <i>INDICATION:</i> ambiguous genitalia, mosaic Turner syndrome, XX males, male infertility.
SPINAL MUSCULAR ATROPHY TYPE 1 (WERDNIG-HOFFMAN)	3 - 5 ml Whole Blood (EDTA) Cultured Amniocytes	Diagnostic test for affected individuals only. Test will not detect carriers. <i>INDICATION:</i> suspected clinical diagnosis, prenatal diagnosis with known familial deletions. <i>CONTRAINDICATION:</i> carrier testing.
SPINOCEREBELLAR ATAXIA PANEL (SCA1, SCA2, SCA3, [MACHADO-JOSEPH DISEASE], SCA6, & SCA7)	3 - 5 ml Whole Blood (EDTA)	PCR-based testing for CAG expansions in five (5) genes Southern not included. Presymptomatic testing of family members requires additional paperwork. Call for details. <i>INDICATION:</i> suspected clinical diagnosis, presymptomatic diagnosis with known familial mutation. <i>CONTRAINDICATION:</i> presymptomatic diagnosis in minors.

DAVID W. GARRISON, Col, USAF, MSC
Deputy Commander, 81st Medical Group

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 33-364, *Records Disposition—Procedures and Responsibilities*, 22 December 2006

AFI 44-102, *Medical Care Management*, 1 May 2006

AFMAN 33-363, *Management of Records*, 1 March 2008

AFPD 44-1, *Medical Operation*, 1 September 1999

Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afrims/afrims/afrims/rims.cfm>.

DoD, Clinical Laboratory Improvement Program, September 2007

Prescribed Forms

No Prescribed Forms

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*, 22 September 2009

Abbreviations and Acronyms

ACMG—American College of Medical Genetics

ACOG—American College of Obstetricians and Gynecologists

AF – Air Force

AFB—Air Force Base

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFMG—Air Force Medical Genetics

AFPD—Air Force Policy Directive

AFRIMS – Air Force Records Information Management System

AZFa—Azoospermia Factor A

AZFb—Azoospermia Factor B

AZFc—Azoospermia Factor C

CAG—(triplet expansion repeat)

CAP—College of American Pathologists

CF—Cystic Fibrosis

CGH - Comparative Genomic Hybridization

CHCS—Composite Health Care System

CLIP—Clinical Laboratory Improvement Program

CST—Central Standard Time

DAZ—Deleted in Azoospermia

DNA—Deoxyribonucleic Acid

DoD—Department of Defense

DSN—Defense Switched Network

EDTA—Ethylenediaminetetraacetic acid

FISH—Fluorescent In Situ Hybridization

FMP – Family Member Prefix

IUFD—Intrauterine Fetal Demise

lab interoper - laboratory interoperability

LIS—Laboratory Information System

MDG – Medical Group

ml/mL—milliliter

MS—Mississippi

MTHFR—Methylenetetrahydrofolate Reductase

NCOIC—Noncommissioned Officer In Charge

OPR – Office of Primary Responsibility

PCR—Polymerase Chain Reaction

Peds—Pediatrics

PWS/AS—Prader-Willi/Angelman Syndrome

RDS—Records Disposition Schedule

SAB—Spontaneous Abortion

SCA—Spinocerebellar Ataxia Panel

SGOU—Genetics

SRY—Sex Region Y

USAF—United States Air Force

Terms

XX— (normal complement of sex chromosomes in a female)

XY—(normal complement of sex chromosomes in a male)

Attachment 2**GENETIC TESTS PERFORMED IN-HOUSE IN ALPHABETICAL ORDER**

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