FAX COVER SHEET

To: Jeffrey Epstein / [redacted]

From: Lisa

Company:

Company: Woodson Merrell MD PLLC

Fax: [redacted]

Phone: [redacted]

Date: 9/21/2018

Pages w/cover: 5

Subject:

9-14-18 IMUGEN Lab Results Jeffr

Comments:

IMUGEN Reference Diagnostic Division
Oxford Immunotec, Inc. d/b/a IMUGEN
315 Norwood Park South, Norwood MA 02062 • [redacted] • FAX [redacted]

Lyme Antibody Analysis

Submitter:

WOODSON C MERRELL MD
SUITE 1B
44 EAST 67TH STREET
NEW YORK, NY 10065

Ordering Provider: WOODSON C MERRELL MD

Account #: MERW

Patient:

Name: JEFFREY EPSTEIN
Address: 9 EAST 71ST STREET
NEW YORK, NY 10021

D.O.B.: 01/20/1953

Submitter Record #:

IMUGEN Patient #: 2018013061

Antibody Capture Enzyme Immunoassay

Test Date: 09/17/2018

Antigen	Antibody Isotype	Results	
		PLASMA # 13061 Collection Date: 09/14/2018 Receipt Date: 09/17/2018	CSF # Collection Date: Receipt Date:
B. burgdorferi 49736	IgM	<1	
	IgG	<1	
	IgA	<1	

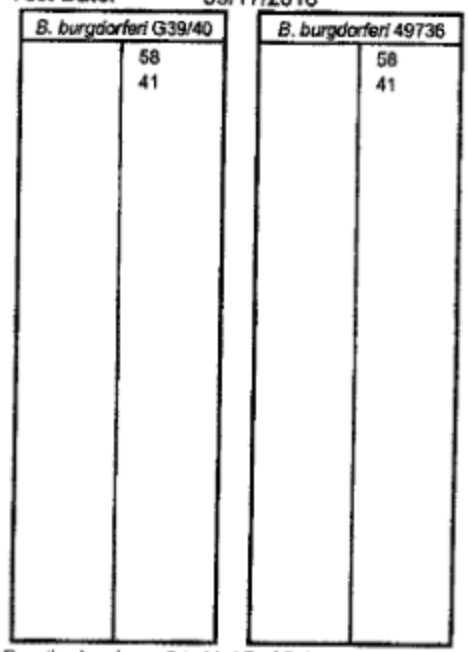
Values reflect the relative amount of *B. burgdorferi*-specific antibody corrected for background.
Normal Range: no antibody detected at <0.8 for IgM and <1 for IgG and IgA.

Comments: No IgM, IgG or IgA antibody to *B. burgdorferi* detected by capture EIA; the IgG immunoblot results fall within normal limits.

Interpretation: No serologic evidence of infection with *B. burgdorferi* (Lyme).

Immunoblot IgG (Western Blot)

PLASMA # 13061
Test Date: 09/17/2018



Reactive bands are listed in kD of *B. burgdorferi* antigens with which IgG is reactive.
Normal Range: Reactivity to <5 antigens on each blot.

Note 1: Results should be evaluated in conjunction with clinical presentation and other medical and diagnostic findings.
Note 2: A negative result does not exclude the possibility of infection with *Borrelia burgdorferi*. Antibodies may not yet be present at the time of blood sample collection or may not yet be detectable.
Note 3: If the initial LAA test result is negative (i.e. antibodies not detected) and the patient's clinical history strongly suggests infection, the collection of a second sample is strongly recommended.
Note 4: Quantitative antibody capture enzyme immunoassay values can vary two-fold within a test run. Values should not be considered clinically relevant outside of a comparative analysis performed on the same patient on the same test run.
Note 5: These tests were developed and their performance characteristics determined by IMUGEN. They have not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. These tests are used for clinical purposes. They should not be regarded as investigational or for research.
Note 6: A positive result may not exclude the possibility of a successfully treated past infection.

Report Date: 09/17/2018 KEW/JAL

Mihae Platt M.D., Ph.D. Director
CLIA number 22D0650196

IMUGEN Reference Diagnostic Division
Oxford Immunotec, Inc. d/b/a IMUGEN
315 Norwood Park South, Norwood MA 02062 • [redacted] • FAX [redacted]

Laboratory Results

Submitter:

WOODSON C MERRELL MD
SUITE 1B
44 EAST 67TH STREET
NEW YORK, NY 10065

Ordering Provider: WOODSON C MERRELL MD

Account #: MERW

Patient:

Name: JEFFREY EPSTEIN
Address: 9 EAST 71ST STREET
NEW YORK, NY 10021

D.O.B.: 1/20/1953

Submitter Record #:

IMUGEN Patient #: 2018013061

Borrelia miyamotoi Serology

PLASMA #: 13061
PLASMA Collection Date: 09/14/2018
PLASMA Receipt Date: 09/17/2018

Test Method: Indirect EIA (Recombinant Antigen)*

Test Date: 09/18/2018

Antigen	Antibody Isotype	Result
*GlpQ**	IgM	<1
*GlpQ**	IgG	4.4

Reportable Range: IgM ELISA: <1 to the value calculated for the highest result on the standard curve.
Reportable Range: IgG ELISA: <1 to the value calculated for the highest result on the standard curve.
Normal Range is negative: ratio of <1 for IgM and <1 for IgG.

Comments: IgG is positive. IgM is negative.

Interpretation: These findings are compatible with either an infection with *B. miyamotoi* at an undetermined time or cross-reacting IgG antibody.

Note 1: Results should be evaluated in conjunction with clinical presentation and other medical and diagnostic findings.
Note 2: Although numeric values are provided on the test report, these values are only relevant when compared to another sample from the same patient on the same test run. To determine whether a patient has significant changes in antibody responses, a second sample (e.g., convalescent sample) may be submitted. The laboratory will analyze the prior sample alongside the newly submitted sample on the same test run.
Note 3: A negative result does not exclude the possibility of infection with *B. miyamotoi*. Antibodies may not yet be present at the time of blood sample collection or may not yet be detectable. If the acute specimen is negative (i.e. antibodies undetectable) and the clinical history strongly suggests infection, collection of a convalescent specimen 3-4 weeks later is recommended. Treatment should never be delayed pending the receipt of laboratory test results, or be withheld on the basis of an initial negative laboratory result.
Note 4: A positive result is not definitive evidence of infection with *B. miyamotoi*. Infection with *Borrelia burgdorferi or Babesia microti* may cause a positive response.
Note 5: This test was developed and its performance characteristics determined by **IMUGEN**. It has not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research.

Report Date: 09/19/2018 ARM

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Laboratory Results

Submitter:

WOODSON C MERRELL MD
SUITE 1B
44 EAST 67TH STREET
NEW YORK, NY 10065

Ordering Provider: WOODSON C MERRELL MD

Account #: MERW

Patient:

Name: JEFFREY EPSTEIN
Address: 9 EAST 71ST STREET
NEW YORK, NY 10021

D.O.B.: 1/20/1953

Submitter Record #:

IMUGEN Patient #: 2018013061

Babesia microti Serology

PLASMA #: 13061
PLASMA Collection Date: 09/14/2018
PLASMA Receipt Date: 09/17/2018

Test Method: Indirect immunofluorescence

Test Date: 09/17/2018

Antigen	Antibody Isotype	Result
B. microti	IgG	<32

Result is the reciprocal of the plasma endpoint dilution.
Normal Range is a titer <32 (1:32 dilution): Negative.

Test Method: Immunoblot (Western Blot)

Test Date: 09/17/2018

Antigen	Antibody Isotype	Result
B. microti	IgG	NEGATIVE
B. microti	IgM	NEGATIVE

Normal Range for IgG Western blot: No reactivity to at least one of three specific protein bands (at 42, 38 and 30KDa): Negative.

Normal Range for IgM Western blot: No reactivity to at least one of four specific protein bands (at 45, 42, 38 and 30KDa): Negative.

Comments: No IgG antibody to *B. microti* detected by indirect immunofluorescence or by immunoblot. No IgM antibody detected by immunoblot.

Interpretation: No serologic evidence of infection with *B. microti*.

Note 1: Results should be evaluated in conjunction with clinical presentation and other medical and diagnostic findings.
Note 2: A negative result does not exclude the possibility of infection with *B. microti*. The immune response may not have developed at the time of sample collection. The CDC recommends that individuals whose exposure could have occurred on the West Coast should be tested also for antibodies to *Babesia duncani*, because of the lack of cross-reactivity with *B. microti*.
Note 3: A positive result is not definitive evidence of infection with *B. microti*. Infection with *Plasmodium falciparum* can cause a positive response.
Note 4: These tests were developed and their performance characteristics determined by **IMUGEN**. They have not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. These tests are used for clinical purposes. They should not be regarded as investigational or for research.

Report Date: 09/18/2018 MR

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CLIA number 22D0650196

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Laboratory Results

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NEW YORK, NY 10065

Ordering Provider: WOODSON C MERRELL MD

Account #: MERW

Patient:

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Address: 9 EAST 71ST STREET
NEW YORK, NY 10021

D.O.B.: 01/20/1953

Submitter Record #:

IMUGEN Patient #: 2018013061

Ehrlichia / Anaplasma Serology

PLASMA #: 13061
PLASMA Collection Date: 09/14/2018
PLASMA Receipt Date: 09/17/2018

Ehrlichia chaffeensis

Test Method: Indirect immunofluorescence

Test Date: 09/17/2018

Antigen	Antibody Isotype	Result
E. chaffeensis	IgG	<64

Result is the reciprocal of the plasma endpoint dilution.
Normal Range is a titer <64 (1:64 dilution): Negative.

Anaplasma phagocytophilum

Test Method: Indirect EIA (Recombinant Antigen)*

Test Date: 09/17/2018

Antigen	Antibody Isotype	Result
*ERF-1**	IgM	<1
*ERF-1**	IgG	<1

Result is the reciprocal of the calculated plasma endpoint dilution.
Normal Range: ratio of <1 for IgM and <1 for IgG.

Comments: No IgM or IgG antibody to *A. phagocytophilum* detected by indirect EIA. No IgG antibody to *Ehrlichia chaffeensis* detected by indirect immunofluorescence.

Interpretation: No serologic evidence of infection to *A. phagocytophilum* or *Ehrlichia chaffeensis*.

Note 1: Results should be evaluated in conjunction with clinical presentation and other medical and diagnostic findings.
Note 2: A negative result does not exclude the possibility of infection with *A. phagocytophilum* or *E. chaffeensis*. Antibodies may not yet be present at the time of blood sample collection or may not yet be detectable. If the acute specimen is negative (i.e. antibodies undetectable) and the clinical history strongly suggests infection, collection of a convalescent specimen 3-4 weeks later is recommended. However, the CDC recommends that diagnosis of HGA or HME must be made based on clinical signs and symptoms, and can later be confirmed using specialized confirmatory laboratory tests. Treatment should never be delayed pending the receipt of laboratory test results, or be withheld on the basis of an initial negative laboratory result.
Note 3: A positive result is not definitive evidence of infection with *A. phagocytophilum*. Infection with *Borrelia burgdorferi or Babesia microti* may cause a positive response.
Note 4: A positive result is not definitive evidence of infection with *E. chaffeensis*.
Note 5: These tests were developed and their performance characteristics determined by IMUGEN. They have not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. These tests are used for clinical purposes. They should not be regarded as investigational or for research.

Report Date: 09/18/2018 DP

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