Ordered Items: **Anemia Profile B; TSH+Free T4; Comp. Metabolic Panel (14); Urinalysis, Routine; Lipid Panel With LDL/HDL Ratio; DHT, Free, LCMS/Dialysis; ADMA/SDMA; Amenorrhea Profile; Testosterone, F Eqlib+T LC/MS; Apo A1 + B + Ratio; Pregnenolone, MS; Hemoglobin A1c; DHEA-Sulfate; Cortisol; Prostate-Specific Ag; IGF-1; Reverse T3, Serum; Vitamin D, 25-Hydroxy; Lipoprotein (a); C-Reactive Protein, Cardiac; TMAO (Trimethylamine N-oxide); Estradiol, Sensitive; Homocyst(e)ine; Uric Acid; GGT; Thyroglobulin Antibody; Fibrinogen Activity; Progesterone; Insulin; Thyroid Peroxidase (TPO) Ab; Triiodothyronine (T3), Free; Magnesium, RBC; Sex Horm Binding Glob, Serum; Venipuncture**

Date Collected: **10/13/2023**

Anemia Profile B

	Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
	Iron Bind.Cap.(TIBC)	332			ug/dL	250-450
	UIBC [01]	238			ug/dL	111-343
	Iron [01]	94			ug/dL	38-169
	Iron Saturation	28			%	15-55
	Ferritin [01]	173			ng/mL	30-400
	Vitamin B12 [01]	780			pg/mL	232-1245
	Folate (Folic Acid), Serum [01]	16.3			ng/mL	>3.0
	Note: [01]	A serum folate concentration of less than 3.1 ng/mL is considered to represent clinical deficiency.				
	. [01]					
	CBC, Platelet Ct, and Diff [01]					
▲	**WBC** [01]	**18.3**	**High**		x10E3/uL	3.4-10.8
	RBC [01]	5.18			x10E6/uL	4.14-5.80
	Hemoglobin [01]	16.6			g/dL	13.0-17.7
	Hematocrit [01]	46.0			%	37.5-51.0
	MCV [01]	89			fL	79-97
	MCH [01]	32.0			pg	26.6-33.0
▲	**MCHC** [01]	**36.1**	**High**		g/dL	31.5-35.7
	RDW [01]	12.7			%	11.6-15.4
	Platelets [01]	286			x10E3/uL	150-450
	Neutrophils [01]	76			%	Not Estab.
	Lymphs [01]	16			%	Not Estab.
	Monocytes [01]	6			%	Not Estab.
	Eos [01]	0			%	Not Estab.
	Basos [01]	0			%	Not Estab.
▲	**Neutrophils (Absolute)** [01]	**14.0**	**High**		x10E3/uL	1.4-7.0
	Lymphs (Absolute) [01]	2.9			x10E3/uL	0.7-3.1
▲	**Monocytes(Absolute)** [01]	**1.2**	**High**		x10E3/uL	0.1-0.9
	Eos (Absolute) [01]	0.0			x10E3/uL	0.0-0.4
	Baso (Absolute) [01]	0.1			x10E3/uL	0.0-0.2
	Immature Granulocytes [01]	2			%	Not Estab.
▲	**Immature Grans (Abs)** [01]	**0.3**	**High**		x10E3/uL	0.0-0.1
	Please note: [01]					

Anemia Profile B (Cont.)

	(An elevated percentage of Immature Granulocytes has not been found to be clinically significant as a sole clinical predictor of disease. Does NOT include bands or blast cells. Pregnancy associated physiological leukocytosis may also show increased immature granulocytes without clinical significance.)				
	Reticulocyte Count [01]	1.4		%	0.6-2.6

TSH+Free T4

	Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
	TSH [01]	1.730			uIU/mL	0.450-4.500
	T4,Free(Direct) [01]	1.39			ng/dL	0.82-1.77

Comp. Metabolic Panel (14)

	Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
	Glucose [01]	95			mg/dL	70-99
▲	**BUN** [01]	**29**	**High**		mg/dL	6-20
	Creatinine [01]	1.20			mg/dL	0.76-1.27
	eGFR	84			mL/min/1.73	>59
▲	**BUN/Creatinine Ratio**	**24**	**High**			9-20
	Sodium [01]	138			mmol/L	134-144
	Potassium [01]	3.8			mmol/L	3.5-5.2
	Chloride [01]	97			mmol/L	96-106
	Carbon Dioxide, Total [01]	27			mmol/L	20-29
▲	**Calcium** [01]	**10.3**	**High**		mg/dL	8.7-10.2
	Protein, Total [01]	7.5			g/dL	6.0-8.5
	Albumin [01]	4.7			g/dL	4.3-5.2
	Globulin, Total	2.8			g/dL	1.5-4.5
	A/G Ratio	1.7				1.2-2.2
	Bilirubin, Total [01]	0.4			mg/dL	0.0-1.2
	Alkaline Phosphatase [01]	92			IU/L	44-121
	AST (SGOT) [01]	19			IU/L	0-40
	ALT (SGPT) [01]	43			IU/L	0-44

Urinalysis, Routine

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Urinalysis Gross Exam [01]				
Specific Gravity [01]	1.026			1.005-1.030
pH [01]	6.5			5.0-7.5
Urine-Color [01]	Yellow			Yellow
Appearance [01]	Clear			Clear
WBC Esterase [01]	Negative			Negative
Protein [01]	Negative			Negative/Trace
Glucose [01]	Negative			Negative
Ketones [01]	Negative			Negative

Date Collected: **10/13/2023**

Urinalysis, Routine (Cont.)

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
Occult Blood [01]	Negative				Negative
Bilirubin [01]	Negative				Negative
Urobilinogen,Semi-Qn [01]	0.2			mg/dL	0.2-1.0
Nitrite, Urine [01]	Negative				Negative
Microscopic Examination [01]					

```
Microscopic not indicated and not performed.
```

Lipid Panel With LDL/HDL Ratio

	Test	Current Result	Flag	Previous Result and Date	Units	Reference Interval
▲	**Cholesterol, Total** [01]	**236**	**High**		mg/dL	100-199
▲	**Triglycerides** [01]	**168**	**High**		mg/dL	0-149
	HDL Cholesterol [01]	52			mg/dL	>39
	VLDL Cholesterol Cal	30			mg/dL	5-40
▲	**LDL Chol Calc (NIH)**	**154**	**High**		mg/dL	0-99
	LDL/HDL Ratio	3.0			ratio	0.0-3.6
	Please Note: [01]					

```
              LDL/HDL Ratio
                      Men   Women
   1/2 Avg.Risk  1.0    1.5
       Avg.Risk  3.6    3.2
    2X Avg.Risk  6.2    5.0
    3X Avg.Risk  8.0    6.1
```

DHT, Free, LCMS/Dialysis

	Test	Current Result	Flag	Previous Result and Date	Units	Reference Interval
▼	**Dihydrotestosterone** [02]	**25**	**Low**		ng/dL	

```
This test was developed and its performance characteristics
determined by Labcorp. It has not been cleared or approved
by the Food and Drug Administration.
Reference Range:
Adult Male: 30 - 85
```

	Test	Current Result	Flag	Previous Result and Date	Units	Reference Interval
	DHT, Percent Free Dialysis [02]	1.00			%	

```
This test was developed and the performance characteristics
were validated by LabCorp. It has not been cleared or
approved by the Food and Drug Administration.
Reference Range:
<18y: Not Established
Adult Males: 0.54 - 2.58
```

	Test	Current Result	Flag	Previous Result and Date	Units	Reference Interval
	DHT, Free [02]	2.50			pg/mL	

```
Reference Range:
<18y: Not Established
Adult Males: 2.30 - 11.60
```

ADMA/SDMA

	Test	Current Result	Flag	Previous Result and Date	Units	Reference Interval
▲	**ADMA** [03]	**112**	**High**		ng/mL	<100

```
Elevated ADMA levels are associated with significant
```

ADMA/SDMA (Cont.)

subclinical atherosclerosis while elevated SDMA levels are associated with kidney function and strongly correlate with reduced eGFR. Available prospective studies suggest an increased risk of cardiovascular disease with higher ADMA concentrations (1). Based on an internal reference range study using 180 'apparently healthy,' non-smoking donors, CHL has defined the following cut-offs for ADMA: A cut-off of <100 ng/mL defines an 'apparently healthy' population at optimal relative risk for a cardiovascular event, 100-123 ng/mL defines a population at moderate relative risk for a cardiovascular event, and >123 ng/mL defines a high relative risk population. (Reference: 1-Willeit P. et al. J Am Heart Assoc. 2015; 4: e001833).This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Cardiometabolic Center of Excellence at Cleveland HeartLab. It has not been cleared or approved by the U.S. Food and Drug Administration. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
SDMA [03]	104		ng/mL	73-135

This test is performed by a Liquid Chromatography-Tandem Mass Spectrometry (LC/MS/MS) method. This test was developed and its performance characteristics determined by the Cleveland HeartLab, Inc. It has not been cleared or approved by the U.S. FDA. The Cleveland HeartLab is regulated under Clinical Laboratory Improvement Amendments (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.

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
PDF [03]	.			

Amenorrhea Profile

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ **LH** [01]	**10.0** **High**		mIU/mL	1.7-8.6
FSH [01]	4.1		mIU/mL	1.5-12.4
Prolactin [01]	10.6		ng/mL	4.0-15.2

Testosterone, F Eqlib+T LC/MS

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Testosterone, Total, LC/MS [A, 04]	509.9		ng/dL	264.0-916.0

This LabCorp LC/MS-MS method is currently certified by the CDC Hormone Standardization Program (HoSt). Adult male reference interval is based on a population of healthy nonobese males (BMI <30) between 19 and 39 years old. Travison, et.al. JCEM 2017,102;1161-1173. PMID: 28324103.

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Testosterone, Free	13.97		ng/dL	5.00-21.00
% Free Testosterone [04]	2.74		%	1.50-4.20

Date Collected: **10/13/2023**

Apo A1 + B + Ratio

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
Apolipoprotein A-1 [01]	137			mg/dL	101-178
▲ **Apolipoprotein B** [01]	**127**	**High**		mg/dL	<90

```
Desirable             < 90
Borderline High     90 -  99
High               100 - 130
Very High            >130
--------------------------------------------------
   ASCVD RISK          THERAPEUTIC TARGET
    CATEGORY             APO B (mg/dL)
 Very High Risk       <80 (if extreme risk <70)
 High Risk            <90
 Moderate Risk        <90
```

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
▲ **Apolipo. B/A-1 Ratio**	**0.9**	**High**		ratio	0.0-0.7

```
Apolipoprotein B/A-1 Ratio
              Male  Female
     Avg.Risk  0.7   0.6
  2X Avg.Risk  0.9   0.9
  3X Avg.Risk  1.0   1.0
```

Pregnenolone, MS

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
Pregnenolone, MS [02]	11			ng/dL	

This test was developed and its performance characteristics
determined by Labcorp. It has not been cleared or approved
by the Food and Drug Administration.
Reference Range:
Adults: <151

Hemoglobin A1c

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
Hemoglobin A1c [01]	5.6			%	4.8-5.6
Please Note: [01]					

Prediabetes: 5.7 - 6.4
Diabetes: >6.4
Glycemic control for adults with diabetes: <7.0

DHEA-Sulfate

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
DHEA-Sulfate [01]	220.0			ug/dL	138.5-475.2

Cortisol

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
▼ **Cortisol** [01]	**0.7**	**Low**		ug/dL	6.2-19.4

Please Note: The reference interval and flagging for
this test is for an AM collection. If this is a PM
collection please use: Cortisol PM: 2.3-11.9

Date Collected: **10/13/2023**

Prostate-Specific Ag

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Prostate Specific Ag [01]	1.0		ng/mL	0.0-4.0

Roche ECLIA methodology.
According to the American Urological Association, Serum PSA should decrease and remain at undetectable levels after radical prostatectomy. The AUA defines biochemical recurrence as an initial PSA value 0.2 ng/mL or greater followed by a subsequent confirmatory PSA value 0.2 ng/mL or greater.
Values obtained with different assay methods or kits cannot be used interchangeably. Results cannot be interpreted as absolute evidence of the presence or absence of malignant disease.

IGF-1

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ **Insulin-Like Growth Factor I** [05]	**347 High**		ng/mL	101-307

Reverse T3, Serum

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ **Reverse T3, Serum** [02]	**33.9 High**		ng/dL	

This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.
Reference Range:
>15y: 9.2 - 24.1

Vitamin D, 25-Hydroxy

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Vitamin D, 25-Hydroxy [01]	59.8		ng/mL	30.0-100.0

Vitamin D deficiency has been defined by the Institute of Medicine and an Endocrine Society practice guideline as a level of serum 25-OH vitamin D less than 20 ng/mL (1,2).
The Endocrine Society went on to further define vitamin D insufficiency as a level between 21 and 29 ng/mL (2).
1. IOM (Institute of Medicine). 2010. Dietary reference intakes for calcium and D. Washington DC: The National Academies Press.
2. Holick MF, Binkley NC, Bischoff-Ferrari HA, et al. Evaluation, treatment, and prevention of vitamin D deficiency: an Endocrine Society clinical practice guideline. JCEM. 2011 Jul; 96(7):1911-30.

Lipoprotein (a)

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Lipoprotein (a) [04]	22.4		nmol/L	<75.0

Note: Values greater than or equal to 75.0 nmol/L may indicate an independent risk factor for CHD, but must be evaluated with caution when applied to non-Caucasian populations due to the influence of genetic factors on Lp(a) across ethnicities.

Date Collected: **10/13/2023**

C-Reactive Protein, Cardiac

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
C-Reactive Protein, Cardiac [01]	1.49		mg/L	0.00-3.00
		Relative Risk for Future Cardiovascular Event		
		Low	<1.00	
		Average	1.00 - 3.00	
		High	>3.00	

TMAO (Trimethylamine N-oxide)

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
TMAO (Trimethylamine N-oxide) [A, 04]	<3.3		uM	<6.2
		TMAO Medical Decision Limits		
		Low	<6.2	
		Moderate	6.2 - 9.9	
		High	>9.9	

Estradiol, Sensitive

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Estradiol, Sensitive [A, 04]	26.7		pg/mL	8.0-35.0
	Methodology: Liquid chromatography tandem mass spectrometry(LC/MS/MS)			

Homocyst(e)ine

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Homocyst(e)ine [01]	12.7		umol/L	0.0-14.5

Uric Acid

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Uric Acid [01]	5.1		mg/dL	3.8-8.4
		Therapeutic target for gout patients: <6.0		
		Please note reference interval change		

GGT

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
GGT [01]	24		IU/L	0-65

Thyroglobulin Antibody

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Thyroglobulin Antibody [01]	<1.0		IU/mL	0.0-0.9
	Thyroglobulin Antibody measured by Beckman Coulter Methodology			

Fibrinogen Activity

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Fibrinogen Activity [01]	331		mg/dL	193-507

Date Collected: **10/13/2023**

Progesterone

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Progesterone [01]	0.1		ng/mL	0.0-0.5

Insulin

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Insulin [01]	14.7		uIU/mL	2.6-24.9

Thyroid Peroxidase (TPO) Ab

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Thyroid Peroxidase (TPO) Ab [01]	<9		IU/mL	0-34

Triiodothyronine (T3), Free

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Triiodothyronine (T3), Free [01]	2.6		pg/mL	2.0-4.4

Magnesium, RBC

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Magnesium, RBC [B, 04]	5.1		mg/dL	4.2-6.8

```
**Effective October 30, 2023 the reference**
  interval for Magnesium, RBC, will be
  changing to:
                                    3.7 - 7.0
```

Sex Horm Binding Glob, Serum

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Sex Horm Binding Glob, Serum [01]	23.4		nmol/L	16.5-55.9

Disclaimer
The Previous Result is listed for the most recent test performed by Labcorp in the past 5 years where there is sufficient patient demographic data to match the result to the patient. Results from certain tests are excluded from the Previous Result display.

Icon Legend
▲ Out of Reference Range ■ Critical or Alert

Comments
A: This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.
B: This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.

Performing Labs
01: SO - Labcorp San Diego, 13112 Evening Creek Dr So Ste 200, San Diego, CA 92128-4108 Dir: Jenny Galloway, MD
02: ES - Esoterix Inc, 4301 Lost Hills Road, Calabasas Hills, CA 91301-5358 Dir: Brian Poirier, MD
03: CLHRT - Cleveland Heartlab Inc, 6701 Carnegie Avenue Ste 500, Cleveland, OH 44103-4623 Dir: Bill Richendollar, MD
04: BN - Labcorp Burlington, 1447 York Court, Burlington, NC 27215-3361 Dir: Sanjai Nagendra, MD
05: CETWE - Labcorp Phoenix, 5005 S 40th Street Ste 1200, Phoenix, AZ 85040-2969 Dir: Earle Collum, MD
For Inquiries, the physician may contact Branch: 800-762-4344 Lab: 858-668-3700

Patient Details
Haines, Corey
3620 GEORGIA ST, SAN DIEGO, CA, 92103

Phone:
Date of Birth: **05/29/1995**
Age: **28**
Sex: **Male**
Patient ID: **MH42905**
Alternate Patient ID: **MH42905**

Physician Details
D FINK
Marek Health
35 W Huron St Ste 1000, Pontiac, MI, 48342

Phone: **877-572-2582**
Account Number: **21025370**
Physician ID: **1891814521**
NPI: **1891814521**

Specimen Details
Specimen ID: **286-494-7905-0**
Control ID: **49894092**
Alternate Control Number: **49894092**
Date Collected: **10/13/2023 1321 Local**
Date Received: **10/13/2023 0000 ET**
Date Entered: **10/13/2023 1649 ET**
Date Reported: **10/25/2023 0335 ET**

Quest Diagnostics™

ClevelandHeartLab®
Know your risk.

Report Status: Final

HAINES, COREY

Patient Information	Specimen Information	Client Information
HAINES, COREY **DOB: 05/29/1995** **AGE: 28** Gender: Male Fasting: Fasting Phone: Patient ID: 2328649479050	Order ID: 2328702239 Requisition: 2328702239 Collected: 10/13/2023, 1:21 PM Received: 10/14/2023, 6:23 PM Reported: 10/21/2023, 10:56 AM	PROVIDER LABCORP 11611 LABCORP SAN DIEGO 13112 EVENING CREEK DR SOUTH SAN DIEGO, CA 92128

Cardiometabolic Report

Test Name	Current Result & Relative Risk		Reference Range/Relative Risk Categories				Historical Result & Relative Risk	
	Optimal	Non-Optimal	Optimal	Moderate	High	Units	/ /	/ /
INFLAMMATION								
ADMA (Asymmetric dimethylarginine)(1)		**112**	<100	100-123	>123	ng/mL		
SDMA (Symmetric dimethylarginine)	**104**			73-135		ng/mL		

UND = UNDETECTABLE **INC = INCOMPUTABLE**

4myheart Diet & Exercise Coaching Program: Need help achieving and maintaining an optimal weight? Managing stress? Trying to improve physical fitness levels? The 4myheart program provides support and personalized lifestyle guidance to help improve heart health. Please talk to your provider, visit 4myheart.com or call 1-800-432-7889 opt 2 to learn more.

Medical Information For Healthcare Providers: If you have any questions about any of the tests in our Cardiometabolic Report, please call Cleveland HeartLab Client Services at 866.358.9828, option 1 to arrange a consult with our clinical education team.

Cardiometabolic Comment Report

INFLAMMATION

ADMA (Asymmetric dimethylarginine)(1) Lab: Z4M

Elevated ADMA levels are associated with significant subclinical atherosclerosis while elevated SDMA levels are associated with kidney function and strongly correlate with reduced eGFR. Available prospective studies suggest an increased risk of cardiovascular disease with higher ADMA concentrations (1). Based on an internal reference range study using 180 'apparently healthy,' non-smoking donors, CHL has defined the following cut-offs for ADMA: A cut-off of <100 ng/mL defines an 'apparently healthy' population at optimal relative risk for a cardiovascular event, 100-123 ng/mL defines a population at moderate relative risk for a cardiovascular event, and >123 ng/mL defines a high relative risk population. (Reference: 1-Willeit P. et al. J Am Heart Assoc. 2015; 4: e001833).

SDMA (Symmetric dimethylarginine) Lab: Z4M

Footnotes

(1) This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Cardiometabolic Center of Excellence at Cleveland HeartLab. It has not been cleared or approved by the U.S. Food and Drug Administration. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

PERFORMING SITE:

Z4M CLEVELAND HEARTLAB INC, 6701 CARNEGIE AVENUE SUITE 500, CLEVELAND, OH 44103-4623 Medical Director: Sami Albeiroti, PhD, D(ABCC) CLIA:36D1032987