#### UNITED STATES PATENT AND TRADEMARK OFFICE

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#### BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ELYSIUM HEALTH, INC., Petitioner

V.

TRUSTEES OF DARTMOUTH COLLEGE, Patent Owner.

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Case No.: IPR2017-01795 Patent 8,383,086

PATENT OWNER'S OBJECTIONS TO PETITIONER'S EXHIBITS

Pursuant to 37 C.F.R. §§ 42.64(b)(1), Patent Owner Trustees of Dartmouth College ("Patent Owner") hereby submits the following objections to the admissibility of certain exhibits served with Elysium Health, Inc.'s ("Petitioner") Petition for *Inter Partes* Review, served on July 17, 2017. Patent Owner's objections are based on the Federal Rules of Evidence and other applicable rules, as set forth with particularity below.

Exhibit No.	Description	Objections
1002	Declaration of Joseph A. Baur, Ph.D.	37 C.F.R. 42.65 (expert testimony that does not disclose the underlying facts or data on which the opinion is based)
		FRE 401, 402 (not relevant) FRE 403 (excluding relevant
		evidence for prejudice, confusion, waste of time, or other reasons)
		FRE 602 (lack of personal knowledge)
		FRE 702 (unreliable expert testimony)
		FRE 801 (hearsay, contents offered to prove the truth of the matter)
		FRE 805 (hearsay within hearsay)
1007	Samuel A.J. Trammell et al.,	FRE 401, 402 (not relevant)

Exhibit No.	Description	Objections
	"Nicotinamide Riboside is a Major NAD+ Precursor Vitamin in Cow Milk," <i>J. of Nutrition</i> , 146(5):965- 963 (2016)	FRE 403 (excluding relevant evidence for prejudice, confusion, waste of time, or other reasons)  FRE 801 (hearsay, contents offered to prove the truth of the matter)
1008	Samuel A.J. Trammell et al., "Nicotinamide Riboside is Uniquely and Orally Bioavailable in Mice and Humans," <i>Nature Communications</i> , Vol. 7, Art. No. 12948 (2016)	FRE 901 (not authenticated) FRE 401, 402 (not relevant)  FRE 403 (excluding relevant evidence for prejudice, confusion, waste of time, or other reasons)  FRE 801 (hearsay, contents offered to prove the truth of the matter)
1009	Joseph Goldberger et al., "A Further Sturdy of Experimental Blacktongue with Special Reference to the Blacktongue Preventive in Yeast," <i>Public Health Reports</i> , 43(12):657-694 (1928)	FRE 901 (not authenticated) FRE 401, 402 (not relevant) FRE 403 (excluding relevant evidence for prejudice, confusion, waste of time, or other reasons) FRE 801 (hearsay, contents offered to prove the truth of the matter) FRE 901 (not authenticated)
1010	Laurent Mouchiroud et al., "NAD+ Metabolism, a Therapeutic Target	FRE 401, 402 (not relevant)

Exhibit	Description	Objections
No.		
	for Age-Related Metabolic Disease," <i>Crit. Rev. Biochem. Mol.</i> <i>Biol.</i> , 48(4):397-408 (2013)	FRE 403 (excluding relevant evidence for prejudice, confusion, waste of time, or other reasons)  FRE 801 (hearsay, contents offered to prove the truth of the matter)
		FRE 901 (not authenticated)
1011	Texas Agricultural Extension Service, "Good Milk for Good Meals," Texas Agricultural Experiment Station, Bulletin No. 807 (1956)	FRE 401, 402 (not relevant)  FRE 403 (excluding relevant evidence for prejudice, confusion, waste of time, or other reasons)  FRE 801 (hearsay, contents offered to prove the truth of the matter)  FRE 901 (not authenticated)
1012	William Douglas McFarlane and Hugh Lehman Fulmer, "The Colorimetric Determination of the Tyrosine and Tryptophan Content of Various Crude Protein Concentrates," <i>Biochemical Journal</i> , 24(6): 1601-1610 (1930)	FRE 401, 402 (not relevant)  FRE 403 (excluding relevant evidence for prejudice, confusion, waste of time, or other reasons)  FRE 801 (hearsay, contents offered to prove the truth of the matter)  FRE 901 (not authenticated)
1013	Library of Congress copy of Joseph Goldberger et al., "A Further Study of Experimental Blacktongue with	FRE 401, 402 (not relevant) FRE 403 (excluding relevant

Exhibit No.	Description	Objections
	Special Reference to the Blacktongue Preventative in Yeast," <i>Public Health Reports</i> , 43(23):1385-1454 (1928)	evidence for prejudice, confusion, waste of time, or other reasons)  FRE 801 (hearsay, contents offered to prove the truth of the matter)
1016	Texas A&M University Library catalogue webpage showing Good Milk's publication details and call number at the library of Texas A&M University obtained from <a href="https://libcat.tamu.edu/vwebv/holdingsInfo?searchId=73&amp;recCount=50">https://libcat.tamu.edu/vwebv/holdingsInfo?searchId=73&amp;recCount=50</a> &recPointer=2&bibId=1216980 as of July 13, 2017	FRE 901 (not authenticated) FRE 401, 402 (not relevant)  FRE 403 (excluding relevant evidence for prejudice, confusion, waste of time, or other reasons)  FRE 801 (hearsay, contents offered to prove the truth of the matter)
1017	Krishna S. Tummala, et al., "Inhibition of De Novo NAD+ Synthesis by Oncogenic URI Causes Liver Tumorigenesis through DNA Damage," <i>Cancer Cell</i> , 26:826-839 (2014)	FRE 901 (not authenticated) FRE 401, 402 (not relevant)  FRE 403 (excluding relevant evidence for prejudice, confusion, waste of time, or other reasons)  FRE 801 (hearsay, contents offered to prove the truth of the matter)  FRE 901 (not authenticated)
1018	Carles Cantó et al., "The NAD+ Precursor Nicotinamide Riboside Enhances Oxidative Metabolism and Protects against High-Fat Diet-	FRE 401, 402 (not relevant)  FRE 403 (excluding relevant evidence for prejudice,

Exhibit No.	Description	Objections
	Induced Obesity," <i>Cell Metabolism</i> , 15:838-847 (2012)	confusion, waste of time, or other reasons)
		FRE 801 (hearsay, contents offered to prove the truth of the matter)
		FRE 901 (not authenticated)
1019	Bing Gong et al., "Nicotinamide	FRE 401, 402 (not relevant)
	riboside restores cognition through an upregulation of proliferator- activated receptor-y coactivator 1α regulated β-secretase 1 degradation and mitochondrial gene expression in Alzheimer's mouse modes,"	FRE 403 (excluding relevant evidence for prejudice, confusion, waste of time, or other reasons)
	Neurobiol. Aging, 34:1581-1588 (2013)	FRE 801 (hearsay, contents offered to prove the truth of the matter)
		FRE 901 (not authenticated)
1020	Joseph Goldberger et al., "The Prevention of Pellagra: A Test of Diet Among Institutional Inmates," <i>Public Health Reports</i> , 30(43):3117-3131 (1915)	FRE 401, 402 (not relevant)  FRE 403 (excluding relevant evidence for prejudice, confusion, waste of time, or
		other reasons)
		FRE 801 (hearsay, contents offered to prove the truth of the matter)
		FRE 901 (not authenticated)
1021	Joseph Goldberger et al., "A Study of the Relation of Diet to Pellagra	FRE 401, 402 (not relevant)
	Incidence in Seven Textile-Mill	FRE 403 (excluding relevant
	Communities of South Carolina in 1916," <i>Public Health Report</i> ,	evidence for prejudice, confusion, waste of time, or

Exhibit No.	Description	Objections
	35(12):648-713 (1920) ("Relation of Diet to Pellagra Incidence")	other reasons)  FRE 801 (hearsay, contents offered to prove the truth of the matter)  FRE 901 (not authenticated)

Date: February 12, 2018

Respectfully submitted,

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#### **CERTIFICATE OF SERVICE**

Pursuant to 37 C.F.R. §§ 42.6(e), the undersigned hereby certifies that a copy of the foregoing PATENT OWNER'S OBJECTIONS TO PETITIONER'S EXHIBITS was served on February 12, 2018 by filing this document through the Patent Trial and Appeal Board End to End as well as by delivering a copy via the delivery method indicated to the attorneys of record for the Petitioner as follows:

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