



EXHIBIT 1

Peter N. Steinmetz, M.D., Ph.D.

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Office Address Nakamoto Brain Research Institute
7650 S. McClintock Drive, Ste 103-432
Tempe, AZ 85284

Education M.D. Johns Hopkins School of Medicine, May 1997.
Ph.D. Johns Hopkins, Department of Biomedical Engineering, January 1996.
B. S. Physics with honors. U. of Minnesota, Institute of Technology, 1987.

Medical Licensure None.

Research Positions

- 2015-present** **Director**
Nakamoto Brain Research Institute, Tempe, AZ
 Founded the NBRI to continue research into human single neuron responses to memory and cognition.
 Analyzing and publishing results from over 2 terabytes of prior single unit recordings in our laboratory and others laboratories around the world.
- 2008-2015** **Director of Neuroengineering, Depts. Neurology & Neurosurgery,**
Barrow Neurological Institute, Phoenix, AZ
 Research in the laboratory focuses in three main areas:
 Plasticity of single-unit neural responses in human cortex and how these may be exploited to control neuroprosthetic devices. Lead investigator of program of recording single neurons from human epilepsy and hamartoma patients.
 Biophysics of implanted electrodes and construction of models of deep-brain stimulation. As principal investigator, have established clinical collaborations to investigate the mechanisms of deep brain stimulation.
 Synchronous neuronal firing and the neural representation of attention.
- 2010-2014 Research Associate Professor of Basic Medical Sciences, University of Arizona.
 2010-2014 Adjunct Professor of Psychology, Arizona State University.
 2008-2010 Clinical Professor of Neuroscience, Neuroscience Graduate Faculty, Arizona State University.
 2007-2008 Member, Speech and Hearing Science Graduate Faculty, Arizona State University.
 2006-2008 Adjunct Associate Research Scientist, Division of Neurology, Barrow Neurological Institute, Phoenix, AZ.
2005-2008 **Assoc. Professor of Bioengineering, Arizona State University, Tempe, AZ.**
 Established program of single neuron intracranial recording in human subjects in collaboration with the Barrow Neurological Institute.
 Served on faculty search committee, college faculty senate, and university institutional review board.
- 2001-2005** **Asst. Professor of Biomedical Engineering, University of Minnesota, Twin Cities Campus.**
 Established the Brain Modeling Laboratory within the department.
 Served on faculty search and graduate admission committees.
- 1998-2001** **Postdoctoral Scholar at the California Institute of Technology, working with Christof Koch.**
 Used stochastic ion channel models to examine the coding fraction for noisy neuronal spike encoders. Showed that typical noisy encoders have a higher coding fraction for low frequency signals, despite having lower timing precision.
 Developed multi-compartmental models of cortical pyramidal cells with embedded stochastic channel and synaptic models. These are being used to quantitatively evaluate the impact of different noise sources on neuronal signal processing.

Developed linearized models of neuronal noise sources and examined the dependence of subthreshold voltage noise on membrane patch size, channel densities and temperature. Developed stochastic simulations of noise sources in both C++ and as Neuron models.

1997–1998 **Postdoctoral Fellow at the Krieger Mind/Brain Institute, working with Ken Johnson and Ernst Niebur.**

Adapted bootstrapping to statistically test correlations between pairs of neurons and developed C++ software to perform this test on experimental data sets. Determined that 70% of cell pairs in the second somatosensory area of awake behaving *Macaque* monkey are significantly correlated and that the degree of correlation varies with the attentional state of the monkey.

Designed, built and tested an amplifier for local field potential recording; this design used analog multiplexing and active filter circuits. Isolated noise sources in a separate headstage amplifier and redesigned it to eliminate them.

1987–1995 **Graduate student at Johns Hopkins University with Raimond Winslow and Eric Young.**

Derived optimal detectors of signals in the photoreceptor network. Used these detectors to quantify the importance of noise sources in limiting the detectability of visual stimuli and how this is affected by observation timing.

Designed and implemented ANSI C programs for computing these detectors on an SGI supercomputer; this code used 2 dimensional Fourier transforms, numerical integration and curve fitting techniques.

Performed intracellular recordings in the eyecup preparation of the tiger salamander retina.

Developed and assembled laboratory for intracellular recording.

Designed light bench for optical stimulation.

Teaching Experience

Analytic and Diagnostic Instrumentation, BME 598. Developed rigorous course in engineering fundamentals. Delivered in fall 2006.

Undergraduate instrumentation course, BME 3201, Bioelectricity and Instrumentation. Developed the course and accompanying laboratory. Taught this course for four years.

Entry graduate level bioelectricity and instrumentation course, BME 5101. Taught in collaboration with Bin He in the department.

Undergraduate physiology laboratory. Teach a module on electroencephalography and one on the electro-oculogram.

Graduate level lab course. Itasca Neurobiology Laboratory. Teach intracellular recording techniques and Hodgkin–Huxley neural theory. Wrote a 20 page coursebook on electronic instrumentation and recording.

Graduate level lab course. Biochemical Sensors I. Practical design and implementation of numerous sensors including glucose and urea sensors using matrix encapsulation and fiber-optic fluorescence.

Mentored 11 graduate students: A. Roy, G. Miyazawa, S. Lu, C. Baker, C. Thorp, S. Sotiropoulos, F. Da Silva, L. Squire, E. Isham, T. Fischer, Y. Drolet, S. Bellinger. Have collaborated with and mentored 15 undergraduate students.

Other Professional Experience

2012–2014 **President, The Medical Memory.**

Developed startup business to provide video recordings of doctor-patient interactions. Interest in company sold to other partners.

1995–1997 **Medical student at the Johns Hopkins Hospital.**

Elective clerkships in neurology, neuropsychiatry and neurosurgery.

1983–1987 **Founder and President of Steinmetz & Brown, Ltd.**

Designed, tested, and produced floppy disk drive controllers for the HP-IL interface; this design, based on a Z-80 microprocessor, used interrupt driven hardware control. Directly responsible for all phases of the product, from conception to launch and national marketing.

Designed, tested and produced satellite communications controller for satellite news gathering vans; this design, based on an 8086 microprocessor, entailed real-time interrupt driven processing. Directly responsible for product design, testing and production.

Designed and implemented business database systems using the Macintosh platform.

As President, supervised 10 employees of the company. Interest in the company sold to other principals.

1980–1983

Systems analyst, Hubbard Broadcasting, Inc.

Designed, tested and implemented microcomputer based system which allowed transfer of schedule information to switching equipment.

Awards

Medical Scientist Training Program, 1987-1995, academic scholarship.

Honorable mention, National Defense Science and Engineering Fellowship competition, 1992.

National Merit Scholar, Boston University.

Society Memberships

Society for Neuroscience.

Biophysical Society.

Biomedical Engineering Society.

Refereed Journal Articles & Book Chapters

Hussey, EK, K Christianson, D. Treiman, KA Smith, and P.N. Steinmetz (2017). Single Neuron Recordings of Bilinguals Performing in a Continuous Recognition Memory Task. *Plos One, in press*.

Steinmetz, P. N. (2017). Comparison of Combined Spike Detection and Clustering Using Mutual Information. *Journal of Neuroscience Methods, in press*.

Newhoff, M., D. Treiman, KA. Smith, and PN. Steinmetz. (2015). Gender Differences in Human Single Neuron Responses to Emotional Faces. *Frontiers in Human Neuroscience* 9(499). DOI: 10.3389/fnhum.2015.00499

Valdez AB, Papes MH, Treiman DM, Smith KA, Goldinger SD, Steinmetz PN. (2015). Distributed Representation of Visual Objects by Single Neurons in the Human Brain. *Journal of Neuroscience*, 35(13):5180-5186.

Wixted, JT, LR Squire, J Yoonhee, MH Papes, SD Goldinger, JR Kuhn, KA Smith, DM Treiman, and PN Steinmetz. (2014). Sparse and distributed coding of episodic memory in neurons of the human hippocampus. *Proceedings of the National Academy of Sciences* 111, no. 26: 9621-9626.

Steinmetz PN, Thorp CK (2013) Testing for effects of different stimuli on neuronal firing relative to background activity. *Journal of Neural Engineering*, 10: 056019.

A Statistical Method for Predicting Seizure Onset Zones from Human Single-Neuron Recordings. Valdez AB, Hickman EN, Treiman DM, Smith KA, Steinmetz PN (2013). *Journal of Neural Engineering*, 10:016001.

Neurons in the Human Hippocampus and Amygdala Respond to Both Low and High Level Image Properties. Steinmetz, P. N., Cabrales, E., Wilson, M. S., Baker, C. P., Thorp, C. K., Smith, K. A., Treiman, D.M. (2011). *Journal of Neurophysiology*, 105:2874-2884.

Modeling Action Potential Generation During Single and Dual Electrical Stimulation of CA3 Axons in Hippocampal Slice. Steven Bellinger, Jong Rho, P. N. Steinmetz, (2010). *Computers in Medicine and Biology*, 40: 487-497.

In situ Single Unit Recording of Hypothalamic Hamartomas under Endoscopic Direct Visualization. Gregory P Lekovic, Kerrigan, J. F., Wait, S., Rekate, H. L., & Steinmetz, P. N. (2009). *Neurosurgery*, 65(6): E1195-E1196.

Task Switch Inhibits Single Neuron Category Selective Responses in the Human Hippocampus While Preserving Selectivity in the Amygdala. P. N. Steinmetz, (2009). *Journal of Cognitive Neuroscience*, 21(2): 347-358.

External Noise Interference in Human Intracranial Microwire Recordings. C.K. Thorp, P.N. Steinmetz, (2009). *IEEE Transactions on Biomedical Engineering*, 56 (1): 30-36.

A Model of Submyelin Potassium Ion Accumulation Causing Axonal Conduction Failure During Deep Brain Stimulation. Bellinger, S, G. Miyazawa, and P. N. Steinmetz, (2008). *Journal of Neural Engineering*, 5: 263-274.

Synchrony: a Neural Correlate of Somatosensory Attention. A. Roy, P.N. Steinmetz, S.S. Hsiao, K.O.Johnson, E. Niebur, (2007) *Journal of Neurophysiology*, 98: 1645-1661.

Assessing the Effects of Deep Brain Stimulation Using Embedded Axon Models. S.N. Sotiroopoulos, P.N. Steinmetz, (2007). *Journal of Neural Engineering* 4:107-119.

Differences in Mnemonic Processing by Neurons in the Human Hippocampus and Parahippocampal Region. I.V. Viskontas, B. J. Knowlton, P. N. Steinmetz, & I. Fried, (2006). *Journal of Cognitive Neuroscience*, 18: 1654-1662..

- Calculation of Stereotactically Registered Brain Conductivities and Anisotropies Using Diffusion Tensor MR Imaging. S.N. Sotiropoulos, B. Mueller, K.O. Lim, P.N. Steinmetz, (2005). *International Journal of Bioelectromagnetism*, 15:146-149.
- Robust Micromechanical Neurite Elicitation in Synapse-Competent Neurons via Magnetic Bead Force Application. Fischer, T. M., Steinmetz, P. N., & Odde, D. J. (2005). *Annals of Biomedical Engineering*, 33:1229-1237.
- Attention to Tactile Stimuli Increases Neural Synchrony in Somatosensory Cortex. Steinmetz, P. N., Hsiao, S. S., Johnson, K. O., & Niebur, E. (2005). In *Neurobiology of Attention*. Eds: Itti, L., Rees, G., & Tsotsos, J. New York: Academic Press/Elsevier, pp 534-37.
- The Impact Of Spike Timing Variability On The Efficiency Of Neural Encoding Models. A. Manwani, P. N. Steinmetz and C. Koch. (2002). *Neural Computation*, 14(2).
- Variability and Coding Efficiency of Noisy Neural Spike Encoders. P. N. Steinmetz, A. Manwani and C. Koch. *Biosystems*, 2002, 62 (1-3): 87 – 97.
- Attention Modulates Synchronized Neuronal Firing in Primate Somatosensory Cortex. P. N. Steinmetz, A. Roy, P. Fitzgerald, S.S. Hsiao, E. Niebur, K. O. Johnson. (2000). *Nature*, 404:187 - 190.
- Channel Noise in Excitable Neuronal Membranes. A. Manwani, P. N. Steinmetz and C. Koch, (2000). *Advances in Neural Information Processing Systems*, 12.
- Subthreshold Voltage Noise due to Channel Fluctuations in Active Neuronal Membranes. Peter N. Steinmetz, Amit Manwani, Michael London, Idan Segev, Christof Koch. (2000). *Journal of Computational Neuroscience*, 9 (2):133-148.
- Rate Limitations of Unitary Event Analysis. A. Roy, P. N. Steinmetz, E. Niebur. (2000). *Neural Computation*, 12(9).
- Model-free Detection of Synchrony in Neuronal Spike Trains, With an Application to Primate Somatosensory Cortex. Arup Roy, P.N. Steinmetz, Ken Johnson and Ernst Niebur. (2000). *Neurocomputing*, 32-33: 1103-1108.
- Optimal Detection of Flash Intensity Differences Using Rod Photocurrent Observations. Steinmetz, P.N. and Winslow R. L. (1999) *Neural Computation* 11(5): 1097-1111.

Other Publications

Animal Models: Some Empirical Worries. Peter N. Steinmetz and Stephen I. Helms Tillery. 1999. *Public Affairs Quarterly*, 8(3), pp. 287-298.

Presentations & Abstracts

Steinmetz, P. N. (2017). Changes in Spike Sorting Technique Affect the Apparent Fraction of Neuronal Responses. Society for Cognitive Neuroscience 626.

Steinmetz, P. N. (2016). Simultaneous Optimization of Spike Detection Thresholds and Cluster Sorting. Society for Neuroscience 116.01.

Steinmetz, P. N. (2016). Effects of Non-Semantic Stimulus Properties on the Responses of Medial Temporal Lobe Neurons. Society for Neuroscience 375.02.

Kuhn, J, JT Wixted, LR Squire, and P. N. Steinmetz (2016). Does Novelty Detection in Single Neurons of the Human Amygdala Underlie the Word Frequency Effect in Recognition Memory Performance? Society for Neuroscience 361.22.

Steinmetz, P. N., J. Kinnison, and L. Pessoa (2015). Image Size Has Significant and Widespread Effects on Human Single Neuron Firing Rates. Society for Neuroscience #200.

Newhoff, M., D. Treiman, KA. Smith, and PN. Steinmetz (2015). Gender Differences in Human Single Neuron Responses to Emotional Faces. *Frontiers in Human Neuroscience* 9 (499).

Valdez, AB, MH Papesh, D. M. Treiman, K. A. Smith, SD Goldinger, and P. N. Steinmetz. 2015. “Distributed Representation of Visual Objects By Single Neurons in the Human Brain.” *Journal of Neuroscience* 35 (13): 5180–86.

Hussey, EK, K Christianson, and P. N. Steinmetz (2015). Cross-Linguistic Activation in Hippocampal Neurons of Spanish-English Bilinguals. Society for Neuroscience 525.11.

Hussey, EK, K Christianson, and P. N. Steinmetz (2015). Cross-Linguistic Activation in Hippocampal Neurons of Spanish-English Bilinguals. *Architectures and Mechanisms of Language Processing*, Valletta, Malta.

Steinmetz, PN, and Thorp, CK. (2014). Recording human intracranial single neuron activity in electrically noisy clinical environments. Society for Neuroscience 853.06.

Kuhn, J, Wixted, JT, Squire, LR, Jang, Y, Papesh, MH, Goldinger, SD, and Steinmetz, PN. (2014). Behavioral confidence during recognition memory is correlated with single unit and multi-unit activity across multiple brain regions. Society for Neuroscience 354.26.

Newhoff, M, Goldinger, SD, Valdez, AB, Papesh, MH, and Steinmetz, PN. (2013). Gender differences in single-neuron responses to emotional faces. Society for Neuroscience 869.08/LLL43.

Wixted, JT, Squire, LR, Jang, Y, Papesh, M, Goldinger, SD, and Steinmetz, PN. (2013). A broadly distributed memory signal in neurons of the human hippocampus. Society for Neuroscience 385.19/KKK62.

- Steinmetz, PN, and Thorp, CK. (2012). Testing for effects of stimulus categories relative to background firing. Soc. Neurosci. Abst. 306.02.
- Steinmetz, PN, Wait, W, Lekovic, GP, Rekate, HL, and Kerrigan, JF. (2012). Synchronous firing in two populations of neurons in human epileptic hypothalamic hamartomas. American Epilepsy Society Meeting 3.337.
- Goldinger, S, Valdez, AB, Papes, MH, and Steinmetz, PN. (2012). Single-neuron responses to emotional expressions in the human brain. Soc. Neurosci. Abst. 391.05/CCC70.
- Wixted, JT, Papes, M, Goldinger, SD, and Steinmetz, PN. (2012). Representation of episodic memory strength by single neurons in the human hippocampus. Soc. Neurosci. Abst. 18.02.
- Wixted, JT, Papes, MH, Goldinger, SD, Jang, Y, and Steinmetz, PN. (2012). Representation of episodic memory strength by single neurons in the human hippocampus. Psychonomics 264.
- Papes, M, Valdez, A, Treiman, DM, Smith, KA, Goldinger, SD, and Steinmetz, PN. (2012). Race selective neurons in the human brain. Soc. Neurosci. Abst. 285.26.
- Hussaina Y., Steinmetz P.N., Treiman D.M. (2011). Juvenile myoclonic epilepsy (JME) is pharmacoresistant in 2/3 of patients. American Epilepsy Society, 1.187.
- Valdez A., Papes, M., Treiman D., Smith K., Goldinger S., Steinmetz P. (2011). Distributed visual representation of objects by single neurons in the human brain. Society for Neuroscience, 125.05.
- Cabralles E.F., Treiman D.M., Steinmetz P.N. (2011). Representation of basic psychological categories of visual objects by single neurons in the human brain. Society for Neuroscience, 125.07.
- Steinmetz P.N., Papes, M., Valdez A.B., Treiman D.M., Goldinger, S. (2011). Single neuron activity reflects source of memory in human medial temporal lobe. Society for Neuroscience, 752.03.
- Vorobjev G., Mihalas S., Steinmetz P. Niebur E (2011). Theta and alpha oscillations throughout the human brain are suppressed following visual stimulation. Society for Neuroscience, 661.03/D66.
- Steinmetz P.N., Wait S., Lekovic G.P., Rekate H.L., Kerrigan J.F. (2010). In Situ Single-Unit Microelectrode Recordings from Hypothalamic Hamartomas Demonstrate Bimodal Neuron Firing Rates. American Epilepsy Society, 2.005.
- Steinmetz P.N., Goldinger S., Papes, M., Treiman D.M. (2010). Repetition Enhances Single Neuron Responses to Word Recognition In Human Anterior Cingulate Cortex. Society for Neuroscience, 534.9.
- Valdez, A.B., Hickman, E.N., Treiman, D., Smith, K. Steinmetz, P. N. (2010). Correlation of Human Intracranial Microwire Recording with Clinical Factors and Outcomes. American Epilepsy Society, 1.202.
- Zwart, C. M., Debbins, J. P., Moguel-Cobos, G. D., Steinmetz, P. N. (2009). Cross subject variability of internal capsule axon angles in DBS candidates: potential impact on stimulation effects. Society for Neuroscience, 326.21/F25.
- Steinmetz, P. N., Wilson, M. S., Baker, C. P., & Thorp, C. K. (2009). Single neuron responses reflect image brightness and contrast in the human medial temporal lobe. Society for Neuroscience, 306.8.
- Bellinger, S. C., Rho, J. M., Steinmetz, P. N. (2009). Modeling action potential generation during electrical stimulation of CA3 axons in hippocampal slice. Biomedical Engineering Society, Pittsburgh, PS 9A-178.
- Zwart, C. M., Debbins, J. P., Moguel-Cobos, G. D., Steinmetz, P. N. (2009). Using diffusion tensor imaging to highlight white matter relevant to deep brain stimulation. Biomedical Engineering Society, PS98-153A.
- Zwart, C., Debbins, J., Moguel-Cabos, G., P. N. Steinmetz (2009). Using Diffusion Tensor Imaging to Highlight White Matter Relevant to Deep Brain Stimulation, University of California Systemwide Bioengineering Symposium, Merced, CA, University of California Merced.
- S. Bellinger, P. N. Steinmetz (2008). Submyelin Potassium Accumulation May Functionally Block Subsets of Local Axons During Deep Brain Stimulation: A Modeling Study. Society for Neuroscience, 517.
- E. Hickman, P. N. Steinmetz (2008). Cellular Yield During Human Intracranial Microwire Recording: Effects of Brain Area, Subsequent Resection Status, and Days After Surgery. Society for Neuroscience, 101.8/VV3.
- S. Bellinger, T. A. Simeone, J. M. Rho, P. N. Steinmetz (2008). Stimulating Schaffer collaterals Using Two Electrodes in a Microelectrode Array Improves Fiber Volley Signal Magnitude. Society for Neuroscience, 101.21/VV16.
- Bellinger, S, and P.N. Steinmetz (2007). Submyelin Potassium Ion Accumulation and Axonal Conduction Failure During Deep Brain Stimulation. Biomedical Engineering Society, Los Angeles, CA. P4.111.
- Isham, E., CP Baker, CK Thorp, WS Banks, P.N. Steinmetz (2007). Separate Image Durations Activate Distinct Neuronal Populations in the Human Medial Temporal Lobe. Computational and Systems Neuroscience, 306.
- C.K. Thorp and P.N. Steinmetz (2007). Pre-selection and Multiple Testing Contaminates Neural Response Analysis. Computational and Systems Neuroscience, 252
- P.N. Steinmetz (2007). Separate image durations activate distinct neuronal populations in the human medial temporal lobe. Bodian Seminar, Zanvil Krieger Mind/Brain Institute, invited talk.

- S.N. Sotiropoulos, P.N. Steinmetz (2006). Assessing the direct effects of brain electrical stimulation using short axon segment models. Society for Neuroscience Abstract, #469.3.
- Isham, EA, CP Baker, CK Thorp, WP Banks, and P.N. Steinmetz (2006). Temporal dependence of single unit responses in human subjects during object categorization. Society for Neuroscience Abstract 504.
- F. DaSilva, P.N. Steinmetz (2006). Blurred Image Categorization. Vision Sciences Society.
- P.N. Steinmetz (2005). Cognitive correlates of single unit activity in the human medial temporal lobe. Invited talk Psychology Colloquium, North Dakota State University.
- C.K. Thorp, P.N. Steinmetz (2005). Noise Sources in Human Intracranial Microwire Recording. Biomedical Engineering Society Meeting (BMES), 2005.
- S.N. Sotiropoulos, P.N. Steinmetz (2005). Modeling the Effects of DBS using Anatomically Consistent Multi-compartment Axon Models., Biomedical Engineering Society Meeting (BMES), 2005.
- S.N. Sotiropoulos, B. Mueller, K.O. Lim, P.N. Steinmetz (2005) Calculation of Stereotactically Registered Brain Conductivities and Anisotropies Using Diffusion Tensor MR Imaging. 5th International conference on Bioelectromagnetism and Noninvasive Functional Source Imaging (BEMNFSI), 2005.
- P.N. Steinmetz (2005). Testing Synchronous Firing: A Framework of Methods.. Computational and Systems Neuroscience 2005, #252.
- S.N. Lu, B.J. Hunt. I. Fried, P.N. Steinmetz. (2004). Identifying sources of visually responsive high frequency activities in human medial temporal lobe. Society for Neuroscience Meeting, #884.19.
- S. Sotiropoulos, P.N. Steinmetz. (2004). A biophysical model of deep brain stimulation of the subthalamic nucleus. Society for Neuroscience Meeting, #1011.5.
- G. Miyazawa, P.N. Steinmetz(2004). Perinodal Potassium Accumulation Blocks Output of Model Subthalamic Neurons. Society for Neuroscience Meeting, #903.7.
- T. Fisher, D. Odde, P.N. Steinmetz (2004) Robustness of tensile-force mediated neurite elicitation in synapse-competent neurons. Biomedical Engineering Society meeting.
- I.V. Viskontas, Knowlton, B. J., Steinmetz, P. N., & Fried, I. (2004). Activity of individual hippocampal neurons during recollection in humans. Cognitive Neuroscience Meeting, 2004.
- Lu, S. N., Ekstrom, A., Isham, E., Fried, I., & Steinmetz, P. N. (2003). A comparison of unsupervised automatic and manual cluster analysis for classifying human single unit data. Neuroscience Abstract, #430.15.
- Steinmetz, P. N. (2002). Attentional shift abolishes response selectivity of single neurons in the human hippocampus but not in the amygdala. Bodian Seminar, Zanvyl Krieger Mind-Brain Institute.
- Steinmetz, P. N., L. Reddy, C. Koch and I. Fried (2001). Task demand changes the visual category selectivity of single neurons in the human medial temporal lobe. Neuroscience Abstracts 10.12.
- E Niebur, A Roy, P.N. Steinmetz, S S Hsiao and K O Johnson (2001). Attention Modulated Synchrony in Primate Cortex. 4th International Neural Coding Workshop, Plymouth, UK.
- P. N. Steinmetz, A. Manwani, and C. Koch (2000). Spike Timing Inprecision May Represent Signal or Noise in Stochastic Neural Encoders. Society for Neuroscience Abstract.
- In Vivo, In Vitro And In Computo Evidence That Membrane Potential Fluctuations Enhance The Computational Efficiency Of Neocortical Neurons. Panel participant at the Winter Conference on Brain Research, 2000 with A. Destexhe, F. Amzica, and S. Hestrin.
- Causes and effects of Irregularity in Neural Firing. Panel at the Winter Conference on Brain Research, 2000 with C. Canavier, H. Braun, and C. Chow.
- P. Steinmetz, A. Manwani, M. London and C. Koch. (1999). Channel Noise in Excitable Neuronal Membranes. Society for Neuroscience, 289.8.
- Attention-induced Changes of Synchronous Firing in Somatosensory Cortex Differ Between the First and Second Primate Somatosensory Areas. E. Niebur, A. Roy, P.N. Steinmetz, P. Fitzgerald, S.S. Hsiao, K.O. Johnson. Soc. Neurosci. Abst., 1999.
- Categories of Correlations Between Neurons in SII Cortex of the Awake Behaving Monkey Performing an Attentional Task. A. Roy, P.N. Steinmetz, E. Niebur. Soc. Neurosci. Abst., 1999.
- Modelling Selective Attention. E. Niebur , C. Koch, L. Itti, P. N. Steinmetz, A. Roy, P. Fitzgerald, K.O. Johnson, S.S. Hsiao. In "From Molecular Neurobiology to Clinical Neuroscience", proceedings of the German Neuroscience Society meeting, Goettingen. 1999. Editors: Elsner, N. and Eysel, U.
- Model-free detection of synchrony in neuronal spike trains, with an application to primate somatosensory cortex. A. Roy, P. N. Steinmetz, E. Niebur. CNS*99.
- Biophysics of Information Transmission in Single Neurons. Amit Manwani, P. N. Steinmetz, Mickey London, and Christof Koch. Neural Information and Coding Workshop, 1999.

Attention Modulates Synchronized Neuronal Firing in Somatosensory Area II. P.N.Steinmetz, A. Roy, P. Fitzgerald, S.S. Hsiao, E. Niebur, K.O. Johnson Hebrew University of Jerusalem, Jan. 1999. Invited talk.

Synchronous firing in the second somatosensory cortex covaries with the attentional state of alert monkey. Steinmetz PN, Roy A, Hsiao SS, Niebur E, Johnson KO. Journal of Cognitive Neuroscience: 56-56, Suppl. S 1999.

Synchronous Firing in the Second Somatosensory Cortex (SII) Covaries with the Attentional State of Alert Monkey. P.N.Steinmetz, A. Roy, P. Fitzgerald, S.S. Hsiao, E. Niebur, K.O. Johnson. *Soc. Neurosci. Abst.*, 1998.

Rate Dependence of Unitary Event Analysis. A. Roy, P.N. Steinmetz, E. Niebur. *Soc. Neurosci. Abst.*, 1998.

Steinmetz, P.N. and R. L. Winslow (1995). Ideal Observers of Signals in the Rod Network. *ARVO Abstracts*, 1284.

Ideal Observers of Neural Signals in Phototransduction and the Noise Characteristics of a Phototransduction Model. Steinmetz, P.N. and R.L. Winslow. *Society for Neuroscience Abstracts* 397.5, 1994.

Impulse initiation in retinal ganglion cells. Steinmetz, P.N., Fohlmeister, J.F., and Miller, R.F. *Society of Neuroscience Abstract* , 1989.

Impulse entrainment at trigger zones with non-uniform excitation and geometric structures. Steinmetz, P.N. and Fohlmeister, J.F. *Society of Neuroscience Abstract* , 1988.

Grant Support

Veritas Fund to Nakamoto Brain Research Institute with P. Steinmetz as PI; June 2016-present.

The Representation of Episodic and Semantic Memory in Single Neurons of the Human Hippocampus. (McKnight Endowment Fund for Neuroscience to J. Wixted as PI, subcontract to P. Steinmetz; February 2014-January 2017).

Memory systems of the mammalian brain. (NIH to L. Squire as PI, subcontract to P. Steinmetz; June 2012-May 2013).

Representation of low and high-level image properties by single neurons in the human medial temporal lobe. (Moore Foundation to R. Adolphs at PI, support to P. Steinmetz as co-investigator; July 2011-June 2013).

Optimizing Placement of Deep Brain Stimulation Electrodes Using Magnetic Resonance and Diffusion Tensor Imaging. (Medtronic Navigation; to Dr. Steinmetz as PI; April 2010-April 2012).

Representation of Memory for Spoken Words and Voice Detail by Single Neurons in the Human Hippocampus. (NIH, NIDCD, 1R21DC009871-0; to Dr. Steinmetz as PI; June 2009-May 2011).

Representation of memory for spoken words and voice detail by single neurons in the human hippocampus. (Arizona Biomedical Research Commission #8-043; to Dr. Steinmetz as PI; July 2008-June 2010).

Multidisciplinary hypothalamic hamartoma research project. (Barrow Neurological Institute Foundation to John F. Kerrigan, M.D. as P.I.; support to P.N. Steinmetz as co-investigator; through June 2007).

Real-time Neural Control by Human Subjects. (Whitaker Foundation; to Dr. Steinmetz as PI; through Oct. 2005).

Recording Visual Responses in the Human Medial Temporal Lobe. (James S. McDonnell Foundation; to Dr. Steinmetz as PI; through Sept. 2004).

Micro-mechanical Engineering of Connectivity in Living Neural Networks. (National Science Foundation to Prof. David Odde, support to P.N. Steinmetz as co-investigator ; through Mar 2004.)



EXHIBIT 2

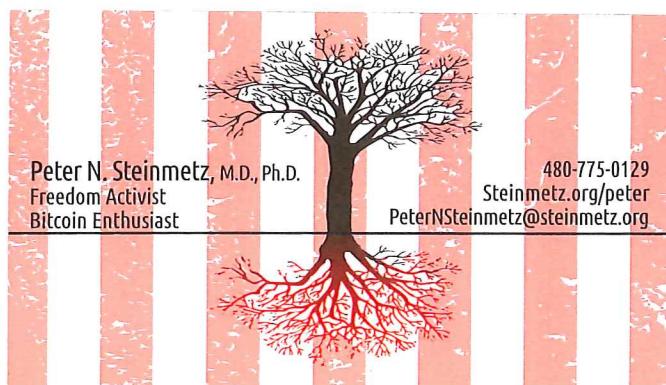




EXHIBIT 3



**U. S. Department of Justice
Drug Enforcement Administration**

www.dea.gov

October 6, 2017

Lee Stein, Esq.
Mitchell Stein Carey, PC
2 North Central Avenue
Suite 1900
Phoenix, AZ 85004

RE: DEA Case No.: MN-16-0072
Asset I.D. No.: 17-DEA-630855
Property: 7.09232292 Bitcoins, Acct.
#15aRXabZfc4o6Dn3qZL4Qjwpa5AdY1SG2E, VL: \$8,843.98
Judicial District: District of Arizona
Claimant: Jonathan Steinmetz

Dear Mr. Stein,

The Drug Enforcement Administration (DEA) has received the submission regarding the above-referenced asset(s). The following information is provided:

- X The claim has been accepted and this matter has been referred to the United States Attorney for the Civil Division in the judicial district noted above. Please direct all inquiries regarding this matter to that office.
- X **Other: Please be advised that the documents provided with your recent submission identified Jonathan Steinmetz as the trustee the Eloise Steinmetz Education Trust. Therefore, the submission for Erik Steinmetz will not be considered as a valid claim due to lack of interest.**

Further correspondence to DEA regarding this matter must reference the DEA case and asset identification numbers noted above and must be addressed to the Forfeiture Counsel, Drug Enforcement Administration, Asset Forfeiture Section, 8701 Morrisette Drive, Springfield, Virginia 22152. Correspondence will be deemed *filed (or submitted)* on the **business** date it is actually received by the Forfeiture Counsel at the address listed above. Correspondence **will not be accepted nor considered filed on weekends or federal holidays**, or when it is received by any other office or official, such as a court, United States Attorney's Office, or local DEA office. In addition, correspondence is not considered filed or submitted if received by an electronic mail or facsimile transmission.

Finally, correspondence is not considered filed or submitted on the date it is mailed or delivered to any person for delivery to the Forfeiture Counsel.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Rannazzu".

Asset Forfeiture Section
Office of Operations Management



EXHIBIT 4

The screenshot shows the homepage of the "Arizona Bitcoin Meetup" group on Meetup.com. The header features a large circular background image of a person's face. Below the header, there is a navigation bar with links for Home, Members, Photos, Discussions, More, and Join us!.

The main content area displays information about the group, including its location (Tempe, AZ), date founded (Jul 4, 2013), and member count (334). It also lists the number of reviews (5), upcoming meetups (6), past meetups (106), and a calendar link.

A prominent feature is a profile card for "Peter N. S.", identified as an Assistant Organizer. His photo shows him wearing a dark t-shirt with a graphic. The card includes his location (Tempe, AZ) and member since date (July 4, 2013).

Below the profile card, there are two Q&A sections:

- Q: Are you new to Bitcoin? A: No, using BTC since Dec 2010.
- Q: Are you looking for investment opportunities? A: Possibly.

Organizers listed are Michael Pickens and Drew Morpheus, Peter N. Steinmetz, and Tim Cat. There is a Contact link.

On the right side, there are sections for "Member of 3 other Meetups" (Arizona Liberty R3VOLUTION, Blockchain Meetup, Valley Gun Group) and "Interests" (Bitcoin).

The footer contains a "We're about:" section listing topics such as Money - Saving Money, Currency Trading - Money Management, Virtual Currency, Cryptography, Bitcoin - Digital Currency, Cryptocurrency, Bitcoin Miners, and Blockchain.



EXHIBIT 5

STEINMETZ [6262-1]

TRANSCRIPTION OF RESTAURANT MEET UP

DATE: 03/21/15

- 1 Peter I'm basically a research neurologist.
- 2 IRS SA: Research neurologist?
- 3 Peter Yeah, so I study how single neurons fire in the brainstem. Epilepsy patients like
- 4 to have electrodes implanted?
- 5 IRS SA: Sure, sure, yeah.
- 6 Mr. Steinmetz: So we do a lot of research in the brain lines.
- 7 IRS SA: Nice.
- 8 Mr. Steinmetz: Yeah, so it's not really a full-time job.
- 9 IRS SA: Well, that's interesting.
- 10 Mr. Steinmetz: With Bitcoin I do a lot of sort of international arbitrage. So, you know, buy and
- 11 sell in different markets at different prices and that sort of thing.
- 12 IRS SA: That's pretty cool. I mean, I can see how it's like a stock market almost. You can
- 13 make money, you can lose money you know.
- 14 Mr. Steinmetz: Yeah, I think...
- 15 IRS SA: It goes up, it goes down, you know.
- 16 Mr. Steinmetz: Well, I always say, if you don't like the price of Bitcoin, wait a while, it'll change.
- 17 [Laughter.]
- 18 IRS SA: Yeah, it may not change in the direction you like, that's the problem.
- 19 Mr. Steinmetz: Well, you know, there's been, since I've been dealing with Bitcoin, there's been I
- 20 think a total of probably four major crashes.
- 21 IRS SA: You've been...
- 22 Mr. Steinmetz: So there's been like four major crashes, okay? So where it dropped. I think the
- 23 worst one I saw dropped 32 fold in the course of a few days.
- 24 IRS SA: Wow.
- 25 Mr. Steinmetz: So, this last crash doesn't seem so bad you know. It's down by a factor of four.
- 26 [Laughter.]
- 27 IRS SA: Yeah, that's pretty bad.
- 28 Mr. Steinmetz: Yeah.

STEINMETZ [6262-1]

TRANSCRIPTION OF RESTAURANT MEET UP

DATE: 03/21/15

- 1 IRS SA: I mean, yeah, I was looking. It went up a size a thousand something, you know.
- 2 Mr. Steinmetz: Yeah, on some markets, essentially around 1,100 for a while, back in November,
- 3 December of 2013.
- 4 IRS SA: Right, right.
- 5 Mr. Steinmetz: We got a meet up, essentially the meet up in November 2013 was huge. I think
- 6 we had 50 people there.
- 7 IRS SA: Really?
- 8 Mr. Steinmetz: There were so many people interested because of the big price run out. You
- 9 know.
- 10 IRS SA: Since the price came down I guess less people are interested now, or, I see only a
- 11 couple you know...
- 12 Mr. Steinmetz: I suppose yeah, that really rapid rise just tends to pull a lot of people out of the
- 13 woodwork. You know, I mean, I've always kind of been in this for political
- 14 reasons essentially, sort of long haul, but I thought I was a good idea to have a
- 15 currency that's direct person to person outside the control of the government.
- 16 IRS SA: Well, I think everybody has different you know, personal, interest personally...
- 17 Mr. Steinmetz: Oh yeah.
- 18 IRS SA: ...or financial interest, yeah. I mean, you said you're interested political mostly in
- 19 this thing?
- 20 Mr. Steinmetz: Yeah, I got involved in it primarily for political reasons, essentially. Initially
- 21 yeah, I thought I think it's a very good idea to have a currency that the
- 22 government can't manipulate.
- 23 IRS SA: Right, right. My main reason is the financial reason, well, listen to me.
- 24 Mr. Steinmetz: What's that?
- 25 IRS SA: I mean, my main reason is financial.
- 26 Mr. Steinmetz: Oh, okay.
- 27 IRS SA: Just you know, it's money that the government can't touch, basically.
- 28 Mr. Steinmetz: Uh huh. Yeah. Yeah, I know a lot of that...

STEINMETZ [6262-1]

TRANSCRIPTION OF RESTAURANT MEET UP

DATE: 03/21/15

- 1 Mr. Steinmetz: I don't know, but I would imagine they did. I mean, I have no idea.
- 2 Male voice: I never assumed, I would never do one, you know, for that reason I would never
3 deposit one you know, like \$9,000.
- 4 Mr. Steinmetz: I know, but if you deliberately break up your deposits into less than \$10,000, you
5 are guilty of the federal crime of structuring your deposits. [Laughter.]
- 6 IRS SA: I think that's another, that probably attracts attention. You go to keep going with
7 \$9,000 deposits every, there, you know.
- 8 Male voice: I wouldn't know anything.
- 9 Mr. Steinmetz: It's just, you know, I have a...
- 10 Male voice: You know I mean, I have privy to an attorney so I've asked him where my
11 money's coming from.
- 12 IRS SA: Good, yeah.
- 13 Mr. Steinmetz: I'm on, you know, I mean Alex and I are going through all this game up on any
14 attempt at add on with the bit point stock. So, you know, I'm a well-known
15 member of the community. They can find me. They know where I live.
- 16 IRS SA: Right.
- 17 Mr. Steinmetz: You know, they, they want to come and get me, they can. So I just try to keep all
18 my stuff legal.
- 19 Wait staff: Are you drinking?
- 20 IRS SA: Right. You know, I get a slice and a diet coke.
- 21 Wait staff: All right, a slice of what?
- 22 Mr. Steinmetz: You know, if somebody comes up to me and says you know, you got this money,
23 it's from somebody with no identity...
- 24 IRS SA: Um, just do the pepperoni.
- 25 Wait staff: There's a two-slice special. Two slices and a coke for \$6 bucks.
- 26 IRS SA: Oh that sounds like a plan, I'll take that.
- 27 Wait staff: All right.
- 28 Mr. Steinmetz: If you tell me outright that what you're doing is illegal, then I'm sorry, I can't be

STEINMETZ [6262-1]

TRANSCRIPTION OF RESTAURANT MEET UP

DATE: 03/21/15

1 sure. I mean. [Laughter.]

2 Male voice: Have you, what sort of accounting software do you use to keep track of your cash
3 only?

4 Mr. Steinmetz: Yeah, the only software I found that works really well is called Gnu Cash.

5 IRS SA: Gnu Cash?

6 Mr. Steinmetz: And it's because they have what are called trading accounts, okay? And there was
7 actually a system that was invented by this guy in Canada. Standard accounting
8 systems are like that you convert any foreign exchange transaction into what's
9 called the home currency of the company. And you maintain the records that
10 way, but it becomes a nightmare if you're doing a lot of exchanges and trades,
11 right, like me. So I'm buying and selling Bitcoin all the time. So this guy
12 invented a way to run what are called trading accounts. So essentially like if you
13 sell like for every currency you're dealing with, there's the account that's the asset
14 of that currency...

15 IRS SA: Uh huh?

16 Mr. Steinmetz: ...and then there's the trading account for that currency. And so like if I sold you
17 five Bitcoin for US dollars, that would essentially be two sets of double entry,
18 okay? One that goes from US dollars to the trading US dollars, and another goes
19 from Bitcoin to trading Bitcoin, okay? And so at the end of the year, the beauty of
20 this is, and so your asset accounts are always right, and your trading accounts
21 essentially are keeping track okay, of how much you net have traded...

22 IRS SA: Mmm.

23 Mr. Steinmetz: ...okay, between the different currencies. So at the end of the year, you can
24 actually just take like the sum of like your trading account and so on and figure
25 out what your overall um short-term gain was, or whatever, however you want to
26 classify it.

27 Male voice: Is that open source?

28 Mr. Steinmetz: Yeah, it's open source, and it's free. It's called Gnu Cash.

STEINMETZ |6262-1|

TRANSCRIPTION OF RESTAURANT MEET UP

DATE: 03/21/15

- 1 IRS SA: So you just download it on the...
- 2 Mr. Steinmetz: C A S H. You have to enable the trading accounts and preferences. You know,
3 and it's not as polished as Quicken or anything.
- 4 IRS SA: But it's got to be tied in to some exchange or, you know.
- 5 Mr. Steinmetz: No, no you just set it up the way you want. I mean, you make your own accounts.
- 6 IRS SA: But you, uh huh?
- 7 Mr. Steinmetz: Right now they don't have the Bitcoin symbol in there, so I just us the Thai Bot,
8 which looks a lot like it. So on my folks I'm trading Thai Bot for US dollars.
- 9 IRS SA: Oh, I...
- 10 Mr. Steinmetz: But I just let the Thai, because I don't actually trade any Thai Bot, so...
- 11 IRS SA: Okay. So this is just for you to keep track of what you, you know, for you...
- 12 Mr. Steinmetz: Yeah, right, for what I'm doing. Yeah, uh huh.
- 13 IRS SA: Well, what do you sell, you sell are you in local Bitcoin.com or how do you sell
14 Bitcoin? What do you buy and sell, local or...
- 15 Mr. Steinmetz: Locally, oh I do it locally. I mean, I have accounts on almost all the major
16 exchanges.
- 17 IRS SA: No, like if I want to buy Bitcoin, how would I find you even?
- 18 Mr. Steinmetz: Well, actually I only do wholesale.
- 19 IRS SA: Oh.
- 20 Mr. Steinmetz: Or, I do two things, okay? I do at these meet ups, I do any amount basically for
21 5% of the exchange.
- 22 IRS SA: Okay.
- 23 Mr. Steinmetz: Okay? And I'm always here. And one of the reasons I do that is I want people to
24 know they're coming to meet up, you can buy and sell some (unintelligible).
- 25 IRS SA: Uh...
- 26 Mr. Steinmetz: That there's always somebody there to buy and sell Bitcoin. That would be me or
27 some of the other common people, like Alex will usually trade you too.
- 28 IRS SA: So I want to buy Bitcoin, so now for example, so you would be selling Bitcoins.

STEINMETZ [6262-1]

TRANSCRIPTION OF RESTAURANT MEET UP

DATE: 03/21/15

- 1 Mr. Steinmetz: Yeah, I'd sell you Bitcoins.
- 2 IRS SA: All right.
- 3 Mr. Steinmetz: Yeah, if you've got the cash, yeah.
- 4 IRS SA: Oh no, I didn't come prepared for that, but I mean next time.
- 5 Mr. Steinmetz: Yeah [repeats]. So if you come to the meet ups, I'll always do business at 5%. A
6 lot of times we put up a board. Morpheus will bring a board.
- 7 IRS SA: Uh huh?
- 8 Mr. Steinmetz: And then there'll be bids and asks on it. So there will be people undercutting that.
- 9 IRS SA: So a little competition. I like that.
- 10 Mr. Steinmetz: See, you get a little competition there. Um, you know, Morpheus will go to your
11 house. I mean, and trade with you. I mean, you know, but aside from the meet
12 ups then, I pretty much only do wholesale, so actually I'll only do deals, I don't go
13 to meet people, so I only do business with people I know, and you know, mostly
14 larger deals outside the meet ups. For investment purposes.
- 15 IRS SA: Wholesale is like with the businesses you mean?
- 16 Mr. Steinmetz: No, no, I mean just larger volumes.
- 17 IRS SA: Oh, okay.
- 18 Mr. Steinmetz: Right? So at the meet up I'll do...
- 19 IRS SA: Larger volumes.
- 20 Mr. Steinmetz: ...you know, if you want to buy a (unintelligible) worth, I'll sell you a
21 (unintelligible) worth. That's fine.
- 22 IRS SA: Huh.
- 23 Mr. Steinmetz: But the guy's I deal with outside the meet ups, we're usually doing many
24 thousands of dollars at a time.
- 25 IRS SA: And still at 5% or what's the order?
- 26 Mr. Steinmetz: Yeah, I usually, I charge 5%. There are people who do less at the meet ups. Like
27 I said, we usually have a board for competition.
- 28 IRS SA: Okay. Maybe I get your contact information, let you know before I leave.



EXHIBIT 6

PETER STEINMETZ, M.D.
[6262-1]

TRANSCRIPTION OF CONVERSATION
DATE: 03/08/16

**IRS SA: IRS Criminal Investigations Special Agent Badge Number 5656
Mr. Steinmetz: Peter Steinmetz
Transcribed from file: 2016.03.08.wav**

IRS SA: This is Special Agent Badge Number 5656, with IRS criminal investigation.

Today is Tuesday, March 8, 2016. The time is approximately 9:33 am Arizona time, and the recording and transmitting device has been turned on for our meeting with Peter Steinmetz. I consent to the recording. [Nonessential recording for approximately 2 minutes.]

Navigation : [Directional guidance for approximately 11 minutes.]

IRS SA: Good morning.

Male voice: Good morning.

IRS SA: Peter?

Mr. Steinmetz: Yeah.

IRS SA: Okay. Could you, if I ring the bell, could you?

Male voice: Oh yeah, I can get it.

IRS SA: Thank you. I like the plates, (unintelligible).

Mr. Steinmetz: Oh, thanks. How are you?

IRS SA: I'm doing all right. How've you been?

Mr. Steinmetz: Good. Good to see you.

IRS SA: Good to see you.

Mr. Steinmetz: Yeah. So what kind of cash did you bring me?

IRS SA: Uh, \$22,000. Wait, but I thought before we give you the money, we should probably talk because I'm going to, looking to do a lot more business with yo

Mr. Steinmetz: Okay?

IRS SA: What makes you comfortable? Because what I do is we have a, you know, I'm a business man. I like to make money.

STEINMETZ [6262-1]

TRANSCRIPTION OF CONVERSATION

DATE: 03/08/16

- 1 Mr. Steinmetz: Yeah, right.
- 2 IRS SA: And I'm Russian, okay?
- 3 Mr. Steinmetz: Okay, yeah.
- 4 IRS SA: So we, a couple years ago, not myself, but I found friends who found a way to
5 move some product...
- 6 Mr. Steinmetz: Yeah.
- 7 IRS SA: ...from here to there.
- 8 Mr. Steinmetz: Okay?
- 9 IRS SA: So what they do is they move the product, but I deal with the money.
- 10 Mr. Steinmetz: Okay.
- 11 IRS SA: Specifically.
- 12 Mr. Steinmetz: Okay.
- 13 IRS SA: So you'd be okay if you know the product is heroin?
- 14 Mr. Steinmetz: Uh, no, absolutely not. In fact, we can't even discuss this any further.
- 15 IRS SA: Really?
- 16 Mr. Steinmetz: Yep.
- 17 IRS SA: Seriously?
- 18 Mr. Steinmetz: Yeah, sorry. Sorry.
- 19 IRS SA: No, because...
- 20 Mr. Steinmetz: No, we can't do any more deals together.
- 21 IRS SA: Okay.
- 22 Mr. Steinmetz: We're done. Okay. Sorry.
- 23 IRS SA: Do you know anybody else who can help with them?
- 24 Mr. Steinmetz: No, now personally, let me preface that by saying personally...
- 25 IRS SA: Uh huh?
- 26 Mr. Steinmetz: ...of course, you know, I'm a strict libertarian, so I personally don't think there
27 should be any laws actually against your dealing in heroin. So I don't...
- 28 IRS SA: I don't deal, I just deal with the money, which is fine.

STEINMETZ [6262-1]

TRANSCRIPTION OF CONVERSATION

DATE: 03/08/16

- 1 Mr. Steinmetz: Yeah, I understand.
- 2 IRS SA: I really just (unintelligible) the stuff.
- 3 Mr. Steinmetz: At the same time I think as a doctor, it's actually terrible. People get involved in
4 these drugs and so on. But my objection here is that I cannot do any deals which
5 involve an illegal activity.
- 6 IRS SA: Okay.
- 7 Mr. Steinmetz: Just because of federal, money laundering laws.
- 8 IRS SA: Really? I just figured since we spoke a few times, and...
- 9 Mr. Steinmetz: Yeah [repeats].
- 10 IRS SA: ...Morpheus you know was able to help me out a little bit.
- 11 Mr. Steinmetz: Right, right.
- 12 IRS SA: But he's not very reliable when we're dealing, we're talking about large sums of
13 money.
- 14 Mr. Steinmetz: Yeah, he's not capable of doing that.
- 15 IRS SA: No.
- 16 Mr. Steinmetz: And then unfortunately I think you're going to have a very hard time because of,
17 you know, you probably know the federal anti-money laundering laws, and
18 obviously if it has anything to do with an illegal activity, then it's illegal under
19 those laws, and so you're going to find...
- 20 IRS SA: Well, a lot of stuff we do is kind of a little bit out of you know, a gray area so to
21 speak.
- 22 Mr. Steinmetz: I agree with you, yeah, so I don't mean it as a personal thing or anything like
23 that...
- 24 IRS SA: No, I understand.
- 25 Mr. Steinmetz: ...I just, I can't, I can't deal with it.
- 26 IRS SA: No, no, we can forget this conversation took place, but I figured since we talked
27 before...
- 28 Mr. Steinmetz: Yeah.

STEINMETZ [6262-1]

TRANSCRIPTION OF CONVERSATION

DATE: 03/08/16

- 1 IRS SA: ...and I know you're very discreet, and you know.
- 2 Mr. Steinmetz: Yeah, yeah, and you know...
- 3 IRS SA: But can...
- 4 Mr. Steinmetz: ...it's not the sort of thing I generally would talk about...
- 5 IRS SA: No, no.
- 6 Mr. Steinmetz: ...and I'm happy to forget the conversation took place, but I can't...
- 7 IRS SA: That's absolutely fine.
- 8 Mr. Steinmetz: ...I just can't do any deals...
- 9 IRS SA: It's just that in New York, it's very difficult to...
- 10 Mr. Steinmetz: Yeah.
- 11 IRS SA: ...get any, you know, Bitcoins at all right now.
- 12 Mr. Steinmetz: Yeah.
- 13 IRS SA: With the New York State...
- 14 Mr. Steinmetz: I don't know anybody who, yeah, I don't know anybody who deals, I'm trying to think, I know West Side Bitcoins, he's a federal, federally registered person, so I think he would be very reluctant. In fact, if you're doing more than \$10,000, he'd probably has to ask for all sorts of identification and things like that.
- 18 IRS SA: Yeah. Sure.
- 19 Mr. Steinmetz: Yeah.
- 20 IRS SA: Because \$23 is like a little small, because I figured we could do \$50 to \$100 grand probably...
- 22 Mr. Steinmetz: Yeah.
- 23 IRS SA: ...next time.
- 24 Mr. Steinmetz: Yeah, but...
- 25 IRS SA: I was going to pay even a little bit higher commission just for...
- 26 Mr. Steinmetz: Right, I understand.
- 27 IRS SA: ...you know, see it's risk, but...
- 28 Mr. Steinmetz: I understand that, but I'm not willing... I can't under, any risks...

STEINMETZ [6262-1]

TRANSCRIPTION OF CONVERSATION

DATE: 03/08/16

- 1 IRS SA: No, it's fine. But can you...
- 2 Mr. Steinmetz: You know, I'm a doctor in the community and things. So I can't, I can't be
3 under...
- 4 IRS SA: No, I definitely understand, that's fine.
- 5 Mr. Steinmetz: I'm really sorry about that.
- 6 IRS SA: And like I said, I don't, I myself, I don't want to, you know, I don't get involved
7 with the drugs crap because...
- 8 Mr. Steinmetz: Yeah.
- 9 IRS SA: ...it's...
- 10 Mr. Steinmetz: Yeah, no, it's crap.
- 11 IRS SA: I just take the money I need. I'm so far removed from it, that it's like, I don't, see
12 it, for myself there's no risk, so I figured there'd be no risk for you.
- 13 Mr. Steinmetz: Right. Yeah.
- 14 IRS SA: All right, that's fine. But do you, do you think of anybody at all?
- 15 Mr. Steinmetz: For that kind of deal...
- 16 IRS SA: Who can do like \$20 to \$100, like \$25 to \$100 grand at a time?
- 17 Mr. Steinmetz: Yeah, that's pretty hard to find. I mean, the only other guy I could think of might
18 be Christian. Do you know him?
- 19 IRS SA: Christian, Christian...
- 20 Mr. Steinmetz: Yeah, goes by Salty. But uh...
- 21 IRS SA: Does he own that local Bitcoin.com?
- 22 Mr. Steinmetz: I think so. I'll, oh, I don't know if he does much business on there. You might
23 find him at the meet ups occasionally.
- 24 IRS SA: Christian is his name?
- 25 Mr. Steinmetz: Yeah, so...
- 26 IRS SA: You have his phone number or anything?
- 27 Mr. Steinmetz: No. No, I don't. But I mean, he goes by Salty, or he used to at least.
- 28 IRS SA: Salty.

STEINMETZ [6262-1]

TRANSCRIPTION OF CONVERSATION

DATE: 03/08/16

- 1 Mr. Steinmetz: He's actually, it's Tuesday right?
- 2 IRS SA: Yeah.
- 3 Mr. Steinmetz: I believe he's actually attending the, you know the block-chain meet up?
- 4 IRS SA: How often is that?
- 5 Mr. Steinmetz: It's once a month, but it's tonight.
- 6 IRS SA: It's tonight, really?
- 7 Mr. Steinmetz: Yeah, yeah. It's called the block-chain meet up. So if you go to MeetUp.com on
8 block chain, and if you go to block chain, then you can find you know, on block
9 chain, yeah.
- 10 IRS SA: Block-chain meet up.
- 11 Mr. Steinmetz: Block-chain meet up. But it's tonight. It's held at the Bad Water Brewing
12 Company.
- 13 IRS SA: Okay.
- 14 Mr. Steinmetz: And if you want to meet Christian, I think he's down. He's noted there as
15 attending that one tonight.
- 16 IRS SA: Okay.
- 17 Mr. Steinmetz: He doesn't always attend.
- 18 IRS SA: Okay.
- 19 Mr. Steinmetz: So you could look for him and talk to him.
- 20 IRS SA: Sure, yeah.
- 21 Mr. Steinmetz: You know, I mean, he's pretty discrete too.
- 22 IRS SA: But is that...
- 23 Mr. Steinmetz: I don't know that he'll be interested in that kind of deal, but you could ask.
- 24 IRS SA: Yeah.
- 25 Mr. Steinmetz: I mean, it never hurts to ask.
- 26 IRS SA: It's just that, you know, if we're going to do large amounts of money, I don't want
27 that conversation to take place later, I'd rather sooner than later. So we can figure
28 out...

STEINMETZ [6262-1]

TRANSCRIPTION OF CONVERSATION

DATE: 03/08/16

- 1 Mr. Steinmetz: Well, you're not going to buy any, I can see you're an honest and forthright guy.
- 2 IRS SA: Yeah, because, especially when we're working together.
- 3 Mr. Steinmetz: Um, and you're kind of in a bind. If you tell people that, of course, then you're
4 sort of putting them in the position of committing what is known to be an illegal
5 act. Whereas if you don't tell them anything, then they can always argue, "Well, I
6 had no idea what business it is."
- 7 IRS SA: Yeah, but if I don't tell them and if it ever comes up, I don't want them to, "Oh,"
8 it's like.
- 9 Mr. Steinmetz: Yeah, right, because you're an honest guy.
- 10 IRS SA: You know what I'm saying? Yeah.
- 11 Mr. Steinmetz: It's a hard, a hard spot to be in.
- 12 IRS SA: I know, it's, I'd ra... Yeah, I'd rather be upfront than we'll do the, never talk
13 about it again. We'll do the business and that's it. So is that the Bitcoin, uh, I
14 mean, the block-chain meet up, is that once a month also or usually?
- 15 Mr. Steinmetz: Once a month, yeah, on Tuesdays.
- 16 IRS SA: Because I'm, it's...
- 17 Mr. Steinmetz: Second Tuesday of the month.
- 18 IRS SA: Because I come to the Bitcoin meets you guys have once in a while.
- 19 Mr. Steinmetz: Yeah.
- 20 IRS SA: But the other ones I wasn't familiar with.
- 21 Mr. Steinmetz: Yeah.
- 22 IRS SA: But I'll check it out.
- 23 Mr. Steinmetz: Yeah.
- 24 IRS SA: But if you think of anybody else.
- 25 Mr. Steinmetz: I'm sorry, I can't. I can't put anything...
- 26 IRS SA: No.
- 27 Mr. Steinmetz: ...basically I can't touch anything...
- 28 IRS SA: No, that's fine. But if you think of anybody, you have my number, you can just

STEINMETZ [6262-1]

TRANSCRIPTION OF CONVERSATION

DATE: 03/08/16

1 text me the person's name and number.

2 Mr. Steinmetz: Sure, sure, if it comes to mind.

3 IRS SA: Because you don't have to say anything. Just text it, and there's no, nobody will
4 know what that's about, you know.

5 Mr. Steinmetz: Right, sure.

6 IRS SA: And then I'll just call the person, you know.

7 Mr. Steinmetz: Okay. Well, thanks for meeting up...

8 IRS SA: Well, sorry about it, all right.

9 Mr. Steinmetz: Yeah, I really appreciate it. You know, and if there's anything else I can help you
10 with, where it's connected to only legalized business... [Laughter.] It has to be
11 only, only strictly above board.

12 IRS SA: No, no, I understand. I understand so...

13 Mr. Steinmetz: And that's just because I have a family, a house, a career, and things like that. So
14 I can't talk about...

15 IRS SA: You been to the airport anytime lately, I know you always...

16 Mr. Steinmetz: No, no, I haven't. Well, I was, we were down there last November.

17 IRS SA: Yeah.

18 Mr. Steinmetz: I'm thinking of actually putting together some sort of a protest probably for the
19 18th of March.

20 IRS SA: What's so special?

21 Mr. Steinmetz: It's just the beginning of spring break, so there's a lot of traffic.

22 IRS SA: Oh yeah.

23 Mr. Steinmetz: I haven't decided exactly. I don't know if you know this guy Lucas Zana up in
24 Mojave County. He's in Kingman.

25 IRS SA: Uh huh?

26 Mr. Steinmetz: So he's a big freedom activist guy up there. So I might actually fly up there
27 and...

28 IRS SA: Oh okay.

STEINMETZ [6262-1]

TRANSCRIPTION OF CONVERSATION

DATE: 03/08/16

- 1 Mr. Steinmetz: ...and meet him at Kingman airport, and we may do something over at Laughlin,
2 but we'll see.
- 3 IRS SA: Well, if you fly out, you won't be able to bring your weapon I guess, if you fly out
4 there right?
- 5 Mr. Steinmetz: Yeah, and you know, I'm actually learning to be a pilot, in fact I take my test
6 tomorrow.
- 7 IRS SA: Oh really? Oh no kidding.
- 8 Mr. Steinmetz: Yeah, yeah.
- 9 IRS SA: You do everything, man. It's like you know...
- 10 Mr. Steinmetz: [Laughter.] So um...
- 11 IRS SA: You have a little plane or?
- 12 Mr. Steinmetz: Yeah, so I bought a 1969 Cardinal. It's a small four-seater. I mean I can carry a
13 firearm in my own plane.
- 14 IRS SA: Oh, of course.
- 15 Mr. Steinmetz: Yeah, it's more troublesome on a commercial flight of course.
- 16 IRS SA: Right, right. But you're not going to fly to New York in a plane like that, right?
- 17 Mr. Steinmetz: Well it would take two days to fly to New York in that kind of plane you know.
18 So, it's not, in fact I'm going to probably (unintelligible) Minnesota.
- 19 IRS SA: Okay.
- 20 Mr. Steinmetz: To meet my brother up there. He's defending his Ph.D. so you know.
- 21 IRS SA: It's easy, I can see it's easy to travel. If you have your own plane it's so much
22 easier than going through the airports too.
- 23 Mr. Steinmetz: Yeah, and you can just, yeah, especially for what we call short, what we call
24 classic short-haul flights. Like say here to LA.
- 25 IRS SA: Right.
- 26 Mr. Steinmetz: Right? It's a lot easier just to go down and hop in your own plane and fly up there
27 than it is...
- 28 IRS SA: Absolutely.

STEINMETZ [6262-1]

TRANSCRIPTION OF CONVERSATION

DATE: 03/08/16

1 Mr. Steinmetz: ...to go down and deal with the TSA and all that.

2 IRS SA: Oh forget it, forget it. It's like the, you almost have to strip down, strip naked
3 sometimes to get through security.

4 Mr. Steinmetz: Yeah, I know. It's really obnoxious.

5 IRS SA: It's just crazy. And the lines are just unbelievable. Have you seen the lines
6 lately?

7 Mr. Steinmetz: Oh, I know, and it's gotten worse, right? As I understand.

8 IRS SA: No, it's gotten worse. I fly back and forth all the time, and it's just, it's ridiculous.

9 Mr. Steinmetz: Yeah.

10 IRS SA: (Unintelligible.)

11 Mr. Steinmetz: You probably don't want to come to one of our protests I suppose.

12 IRS SA: No...

13 Mr. Steinmetz: It's a little bit high profile for you.

14 IRS SA: ...I want to keep a little bit under radar, you know.

15 Mr. Steinmetz: Yeah.

16 IRS SA: But it's not like I do anything outwardly illegal or anything like that.

17 Mr. Steinmetz: Yeah.

18 IRS SA: And I still, I think what I'm doing is kind of gray, you know?

19 Mr. Steinmetz: Yeah, it's, I mean, it's in a gray, it's not outright, I mean, what you're involved in,
20 is an activity that should not be illegal, quite frankly. In other words, this whole,
21 we can't catch the drug criminals, because of course the whole drug war is
22 ridiculous. And so it's impossible right? To ever...

23 IRS SA: It is.

24 Mr. Steinmetz: ...win it. Okay?

25 IRS SA: Right, right.

26 Mr. Steinmetz: So since we can't catch them, now we'll try to criminalize everybody else who's
27 involved in, and it's just ridiculous.

28 IRS SA: I know, it's like go to the source, or do, and you know, it's like, look what's going

STEINMETZ [6262-1]

TRANSCRIPTION OF CONVERSATION

DATE: 03/08/16

1 on in Mexico right now, it's just...

2 Mr. Steinmetz: Oh yeah, and we've turned our drug wars have essentially turned small, several
3 small Central American countries into war zones, needlessly, I mean...

4 IRS SA: It's, it's, it's wo...

5 Mr. Steinmetz: I'm completely and utterly opposed to it. It's just ridiculous.

6 IRS SA: When it...

7 Mr. Steinmetz: So you know, I'm tempted to do things to bypass it, but you know, like I say, I'm
8 just not in a position.

9 IRS SA: No, I understand. You don't want to risk it, you know.

10 Mr. Steinmetz: Yeah.

11 IRS SA: All right, well listen, you know, it is what it is.

12 Mr. Steinmetz: Hey, thanks a lot for coming by. I appreciate. It's great to see you again.

13 IRS SA: Sure. Nice to see you. Probably see you at the other meet ups.

14 Mr. Steinmetz: Yeah, that sounds great. Good luck in finding people to help you out.

15 IRS SA: All right. If you think of anybody, text me.

16 Mr. Steinmetz: I will do that.

17 IRS SA: All right, you take care.

18 Mr. Steinmetz: Take care.

19 IRS SA: All right, you too. So long. [Nonessential recording for approximately 11
20 minutes.]

21 **END OF RECORDING**

22

23

24

25

26

27

28



EXHIBIT 7

INTERVIEW WITH COSTANZO (MORPHEUS)

Interviewer: UC

04/10-17 8:00 am

1183

1184 A: ...so then I can sort-of defend myself if...

1185

1186 Q: Okay.

1187

1188 A: ...it were to come to that.

1189

1190 Q: I understand that.

1191

1192 A: Right? Now I hope - I hope it - you know, hopefully you're...

1193

1194 Q: But I mean you're not up front gonna go like distribute my info to anyone, right?

1195

1196 A: No, of course not.

1197

1198 Q: I don't want, like...

1199

1200 A: No, I can - I can - I can assure you - okay? - that under no circumstances will I release your information or your identity any other party...

1202

1203 Q: Right.

1204

1205 A: ...and even including him, but he maybe already who you are, um...

1206

1207 A1: I don't even care.

1208

1209 A: Yeah, okay. I will not release that unless I am required to by a court of law.

1210

1211 Q: Okay.

1212

1213 A: Okay, so if I get a subpoena or that information from a proper court, then I will feel

INTERVIEW WITH COSTANZO (MORPHEUS)

Interviewer: UC

04/10-17 8:00 am

1214 under a legal obligation to do that.

1215

1216 Q: And that's okay.

1217

1218 A: And even - I mean that's how I (unintelligible) when they say, "Hey, hey, we don't want
1219 to talk to you about this" blah, blah, blah - I'm probably gonna tell 'em, like, I always
1220 would, "I tell you what, I'm willing to talk to you in the presence of my attorney once
1221 you have a subpoena."

1222

1223 Q: Yeah.

1224

1225 A: Right? That's - that's always my position is that I - you know, because if you don't, you
1226 end up like Martha Stewart, okay, where they try to construe...

1227

1228 A1: Right.

1229

1230 A: ...something you told them - that's a lie and now you're guilty - you're not guilty of the
1231 original crime...

1232

1233 A1: Right.

1234

1235 A: ...they were trying to nail you for, instead you're guilty of lying to a Federal Agent.

1236

1237 A1: Right.

1238

1239 A: So that's why my standard response is "Do you have a warrant or a subpoena," I will,
1240 "I'm happy to cooperate with you, I'm doing nothing illegal, happy to cooperate with
1241 you in the presence of my attorney."

1242

1243 Q: All right. Yeah that makes - I just wanna make sure you're not giving, like - if I were to
1244 go into Wells Fargo with 100 grand, they're gonna take my ID and they're not gonna

INTERVIEW WITH COSTANZO (MORPHEUS)

Interviewer: UC

04/10-17 8:00 am

1245 tell me what they're using it for, then they're just gonna go file forms and get
1246 (unintelligible).

1247

1248 A: Oh, no. They will - no, I actually I can exactly what they're going to do, they're gonna
1249 file two forms - okay? - they're going to file, a, uh, they have to file, a, um -
1250 (unintelligible) a form number, but there's a form anytime you bring your money,
1251 \$10,000 in cash, they have to file...

1252

1253 Q: Okay.

1254

1255 A: Then on top of that, they're gonna file probably, unless - if you're a known customer, I
1256 guess, they might not file a suspicious activity report, and they - 'cause they file these
1257 things on me all the time.

1258

1259 Q: Okay.

1260

1261 A: Okay? 'Cause I turn around and I'll take...

1262

1263 Q: So that's - that what's get sent to Government or IRS or whoever...

1264

1265 A: It get sent to, uh...

1266

1267 Q: Are they doing anything with it?

1268

1269 A: ...what is it called, um, little (unintelligible)?

1270

1271 A1: (Unintelligible).

1272

1273 A: Yeah.

1274

1275 A1: (Unintelligible).

INTERVIEW WITH COSTANZO (MORPHEUS)

Interviewer: UC

04/10-17 8:00 am

1276

1277 A: Yeah, financial fraud (unintelligible) - financial incidence crimes - I don't know,
1278 something...

1279

1280 A1: Something.

1281

1282 A: Yeah, enforcement something so they...

1283

1284 A1: Yeah.

1285

1286 A: ...all get sent there, they probably are sitting in a locker ready to blow up some day, I
1287 doubt anybody actually ever looks at these things, but the banks also, you know, they
1288 have their compliance offices - anyone - and - and the - have rules with them. I do a
1289 fair amount of cash business, again, all completely legal...

1290

1291 Q: Yeah.

1292

1293 A: ..just like we're saying, right?

1294

1295 Q: Yeah.

1296

1297 A: And if want - you know, if you walk in there more than probably once every two weeks
1298 or so with more than 10 Grand, their own departments - I mean the banks are virtually
1299 - are virtually, um, are virtually (unintelligible).

1300

1301 A1: Yeah, it's like...

1302

1303 A: Yeah.

1304

1305 A1: (Unintelligible).

1306



EXHIBIT 8

INTERVIEW WITH CONSTANZO
Interviewer: UC
04-20-17/10:40 am
[REDACTED]

718 A: I don't buy it 'cause I'm, like, - 'cause if you can deduce some of these tax bills when
719 they're retired...

720

721 Q: Yeah.

722

723 A: ...that's the best way to give them more money - you know, to increase your wealth is
724 just not pay taxes.

725

726 Q: Yeah.

727

728 A: Yeah. So he - you know, I'm like (unintelligible), who's this guy? You know, I don't
729 know, maybe he is, I don't know but (unintelligible).

730

731 Q: Well, I think we're gonna be happy today.

732

733 A: Okay.

734

735 Q: I supposed to get - haul a hundred for...

736

737 A: (Unintelligible)

738

739 Q: Which is really (unintelligible)...

740

741 A: (Unintelligible).

742

743 Q: Trying to fit twenties and (unintelligible).

744

745 A: Hey, hey. (Unintelligible).

746

747 Q: Look, street money, you know...

748

INTERVIEW WITH CONSTANZO

Interviewer: UC

04-20-17/10:40 am

[REDACTED]

749 A: The guys...

750

751 Q: ...regular small bills...

752

753 A: I don't need to know, you know...

754

755 Q: Totally.

756

757 A: ...you know what? That's part of the, you know, like - people here (unintelligible).

758

759 Q: Oh, it's kinda- kinda stuff that scares 'em.

760

761 A: That's absolutely and fucking, like, in...

762

763 Q: (Unintelligible).

764

765 A: End of - end of meeting.

766

767 Q: I thought I did pretty good in the last one.

768

769 A: Right.

770

771 Q: I didn't say anything specific, I just (unintelligible) sale of business and...

772

773 A: Right.

774

775 Q: ...that's all you need to know.

776

777 A: Right.

778

779 Q: (Unintelligible).



EXHIBIT 9



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September 28, 2017

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Re: United States v. Costanzo, et al.; CR 17-00585-PHX-JJT
Request for Grand Jury transcript and legal instructions

Dear Matt and Carolina:

We are writing to ask that you provide to us (1) the testimony of any testifying agent before the Grand Jury (such testimony would be produced at a pretrial motions hearing in any event)¹ and (2) the legal instructions to the grand jury regarding the elements of the offenses with which Dr. Steinmetz has been charged. We appreciate the dialogue we have had to date regarding the law governing 18 U.S.C. § 1960 and other charges in the indictment. However, based upon that dialogue, we are concerned that the Grand Jury may have been inaccurately instructed on the law and thus a particularized need exists for disclosure of grand jury materials. *See Douglas Oil Co. of Cal. v. Petrol Stops Nw.*, 441 U.S. 211, 223-24 (1979); *see also* Fed. R. Crim. P 6(e)(3)(E)(ii). Given the confusing and vague nature of the statutes and guidance, and the fact that the law has not been clearly developed, such a result is not surprising.

The Government's case against Dr. Steinmetz rests entirely on whether he is engaged in an unlicensed money transmitting business. 18 U.S.C. § 1960. We note that in our discussions you have referenced 31 CFR 1010.100(ff)(5(i)(A)'s definition of the term "money transmission services" and

¹ We have previously requested discovery under Fed. R. Crim. P. 26.2. Pursuant to Fed. R. Crim. P. 26.2(f), a witness' statement includes a statement to a grand jury.

Matthew Binford
Carolina Escalante Konti-Fernanda
September 28, 2017
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FinCEN's definition of an "exchanger." That definition has 2 components: (1) "acceptance of currency, funds, or other value that substitutes for currency from one person," and (2) transmission . . . to another location or person." We are concerned that the Government's reading of the definition fails to recognize that where a person acts not for "another person" but rather for his or her own account, that person is not a money transmitter. Moreover, an exchanger is a person engaged as a business in the exchange of currency. In contrast, a user is a person who obtains virtual currency on the user's own behalf. These concepts are fleshed out in FinCen's published opinions FIN-2014-R001 (January 30, 2014) "Application of FinCEN's Regulations to Virtual Currency Mining Operations," and FIN-2014-R002 (FinCEN, January 30, 2014) Application of FinCEN's Regulations to Virtual Currency Software Development and Certain Investment Activity," both of which modify FinCEN's definition of user. The Government's failure to recognize the critical distinction in this case between users and exchangers causes us to be concerned that the Grand Jury was not instructed on these critical definitions.

It is especially important in this case – where the entire case depends upon whether Dr. Steinmetz's conduct in trading Bitcoin for his own investment purposes falls within the ambit of the statute – that the Grand Jury understand the definitions and legal concepts applicable to the case.

We also note that Count 2 of the indictment, in alleging 3 different ways by which Dr. Steinmetz violated 18 U.S.C. § 1960, appears legally unsupportable as to at least 2 of the 3 prongs. While Count 2 references Section 1960(b)(1)(A) as a basis for criminal liability, asserting that an appropriate money transmitting license is required under Arizona law, there is in fact no such requirement under Arizona law. Further, while Count 2 also references Section 1960(b)(1)(C), asserting that the alleged business involved the transport and transmission of funds that were known to him to have been derived from a criminal offense and were intended by him to be used to promote and support unlawful activity, it appears undisputed that Dr. Steinmetz did not have such knowledge. As you know, on March 8, 2016, when "Sergei" (the undercover agent) stated to Dr. Steinmetz that Sergei's funds derived from illegal heroin sales, Dr. Steinmetz refused to proceed with the sale of bitcoin, and specifically advised Sergei "we can't do any more deals together, we're done." On numerous other dates Dr. Steinmetz advised Sergei and others that he would not engage in any illegal activity. Further, the indictment does not charge Dr. Steinmetz with a violation of 18 U.S.C. § 1956(a)(3)(B) &(C), in contrast to Mr. Costanzo, who is charged with that offense in Counts 3-7.

Was the grand jury instructed that as to Dr. Steinmetz, the government's only theory for a violation of 18 U.S.C. § 1960 in Count 2, was that he had violated Section 1960(b)(1)(B), and that to return an indictment, a sufficient number of grand jurors would have to find that Dr. Steinmetz had violated that subsection?

We are hopeful that you will agree to share this information with us and we can avoid filing a motion with the Court. Please let us know by October 5, 2017 whether you will make the Grand Jury materials we seek available.

Matthew Binford
Carolina Escalante Konti-Fernanda
September 28, 2017
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Very truly yours,

MITCHELL | STEIN | CAREY | CHAPMAN, PC

Michael Morrissey

By:

Michael Morrissey