



Gerald Brock, MD FRCSC

Professor

Department of Surgery

Division of Urology

Schulich School Of Medicine and Dentistry

Western University London Ontario

RE: Sri Nithyananda Swami

I, Dr. Gerald B. Brock, Urologist and Surgeon, of the City of London, Province of Ontario, hereby MAKE OATH AND SAY:

1. I am a Professor of Surgery, in the Faculty of Medicine, Division of Urology, at the University of Western Ontario, in London Ontario. I attach a copy of my current *curriculum vitae* as **Exhibit "A"**.

Qualifications

2. I received a B.Sc. in Physiology in 1981 and an M.D. in 1986, both from McGill University. From 1986 to 1991, I trained as a urology resident at McGill University. I passed my Urology Royal College board exams in 1991.

3. From 1991 to 1993, I was a research fellow at the University of California at San Francisco (UCSF). There, my research centered on neuro-urology, under the direction of Drs. Tom Lue and Emile Tanagho, both leading researchers in the area of erectile dysfunction.

4. The focus of my research was on the causes and treatments of erectile dysfunction. One specific area I studied during this time was the non-adrenergic non-cholinergic (NANC) pathway, and the neuro-regulation of erections in rats, dogs and humans.

5. I have received awards for my research in the urology field, and in particular relating to investigations into erectile dysfunction. These are set out fully in my attached *curriculum vitae*, but some of the more prominent and relevant awards I received are:

- (a) The 1992 Jean-Paul Ginestie Prize for research relating to the three-dimensional structure of the human tunica albuginea: anatomical and ultrastructural levels, at the 1992 Vth World Meeting on Impotence; as a co-author.
- (b) First prize in the 1993 Joseph F. McCarthy Essay Contest run by the American Urological Association, Western Section, for my paper titled "Nitric Oxide Synthase: A new diagnostic test for neurogenic Impotence". I also received a similar award from the Quebec Urological Association for the same paper in 1993;
- (c) First prize in the 1994 Canadian Urological Association Essay Contest for my paper titled "Is nitric oxide synthase testosterone dependent: an animal model". I also received the Jean-Paul Ginestie Prize for this research at the 1994 VIth World Meeting on Impotence, run by the International Society for Impotence Research;
- (d) Second place in the 1995 Jack Lippes Essay Contest, run by the American Urological Association, for a paper titled "Erection is a testosterone-dependent event: an animal model";
- (e) The 2003 Outstanding Urology Teaching Award, from the University of Western Ontario.

6. I am a member of the Canadian Urological Association, the American Urological Association, the Canadian Medical Association, the Canadian Fertility and Andrology Association, the Canadian Male Sexual Health Council, Sexual Medicine Society of North America (SMSNA) and the Canadian Urology Research Consortium (CURC). I have attended all Canadian Urological Association and American Urological Association meetings dating from 1992 onward. I was previously the Secretary of the SMSNA. I am the treasurer of the CURC and the chair of the Canadian Urology Association, Office of Education.



7. I currently hold, or have held, seats on national and international committees relating to erectile dysfunction and its treatments, including the chair of the Canadian Urological Association's Sexual Health Education Council, the Heart and Stroke Foundation's Cardiovascular Safety — VIAGRA panel, and the World Health Organization Consensus Panel on Impotence. At the last WHO Consensus Conference on Impotence in Paris, I served as a member of the pharmacologic therapeutics committee that evaluated PDE5. I am the chair of the 2015 ISSM Consensus Meeting on Sexual Medicine in association with ICUD (International Consensus of Urological Disease).

8. Since 1993 I have taught and supervised undergraduate and graduate medical students, post-doctoral research fellows, and urology residents. My teaching has focused on infertility and erectile dysfunction, including the causes, known and established treatments, and research regarding new theories of treatment. I have been the urology residency Program Director at Western University since 2010. I am presently a contributor to the Royal College of Physicians and Surgeons of Canada for urology. From 2000-2004, I was a member of the test committee for the Royal College of Physicians and Surgeons of Canada for urology and served as a core examiner for the test committee from 2004-2009. From 1994 to 1998 I was a Urology in Training examiner at McGill University. I sit on the editorial boards of *The Canadian Journal of Urology*, the *Journal of Andrology*, and the *Journal of Sexual Medicine*. I am also an *ad hoc* reviewer for the *Journal of Urology*, *Urology*, *American Journal of Physiology*, *American Society of Hospital Medicine*, *Pharmacists AHFS Drug Information*, *Canadian Medical Association Journal*, and *Asian Journal of Urology*.

9. I am an author on over 150 peer reviewed publications and book chapters, and almost 100 additional presentation abstracts, most relating to erectile dysfunction. I have also been an invited speaker at many institutions around the world, again mostly relating to erectile dysfunction. Details are set out in my *curriculum vitae*.

10. I have, since 1986, kept abreast of the scientific literature relating to urology, and erectile dysfunction in particular, by regularly reading prominent journals such as *Urology*, *Journal of Urology*, *Canadian Journal of Urology*, *International Journal of Impotence Research*, *New England Journal of Medicine*, *Circulation*, *Circulatory Research*, *American Journal of Physiology*, and *British Journal of Urology*. I have particularly followed the scientific literature



relating to the elucidation of the pathways involved in the penile erection process, and new theories and developments relating to the causes and treatments of erectile dysfunction.

11. As a result of my educational and professional experience, I believe I am qualified to express the opinions set out below.

12. I have reviewed the relevant documents from the Bangalore Medical College and Research Institute, Victoria Hospital, related to the above matter and believe I can provide you with an expert medical opinion, based on my training and knowledge in this area of medicine, attached as Exhibit "B".

13. I have reviewed the medical reports you provided to me in detail and believe I can provide you with an opinion, where possible, I have attempted to quantify the degree of medical certainty my statements are based upon.

14. I have reviewed the medical records of the defendant pertaining to the government based assessment of Sri Nithyananda Swami and they serve as the basis of my opinion. Over the past decade the relationship between testosterone levels and sexual function have become much more apparent. Testosterone is thought to be an essential element in up-regulating the neurotransmitter for erectile function, nitric oxide via its direct action on nitric oxide synthase. In addition to neural signaling, testosterone has been shown to directly alter the structure of the penis with loss of normal veno-occlusion (VOD) as a frequent cause of erectile dysfunction in hypogonadal men. In fact, low testosterone animal models are used to study VOD. In this case, small testes volume, with low LH levels and low testosterone measured levels are reported.

15. Although having data on the erectile capacity with a vasoactive intra-penile injection would have been valuable, it would not have been definitive in any case. Over the past 25 years I have seen many men who cannot achieve any erectile penile rigidity but will achieve rigidity when they are injected with a vasoactive drug. Particularly when neural causes are etiologic, which may be the case here, as he is known to have both hypertension (vascular disease), endocrinologic causes (low testosterone, small testes, low LH) and diabetes (neural cause).

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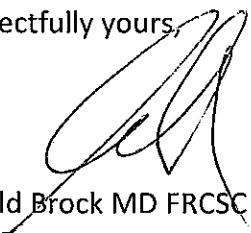
16. The laboratory values all confirm a hypogonadal state, in which testosterone, LH and testes size are all below the normal range. The evidence would support his claims about absent sexual drive and would be consistent with a higher probability of impaired or absent function. Additionally, among men with longstanding hypogonadism, the likelihood of impaired veno-occlusion is thought to be elevated and probably represents a significant contributing factor in many men under age 50 who have erectile dysfunction.

17. Based upon my review of defendant's attached records, the tests have shown no evidence of a sexually transmitted disease. This would be another piece of evidence that would serve in my opinion, to discount the claims of unprotected sexual intercourse between defendant and his accuser.

18. It seems curious that the final evaluation of the Government Medical Panel was inconsistent with the vascular study in which impaired cavernosal arterial was noted, the ultrasound report where reduced testicular size measured and the biochemical analysis of testosterone which is clearly deficient, yet they believe the defendant has no evidence of impaired erectile function. Additionally, his medical history of diabetes and hypertension would increase his risk of erectile dysfunction statistically to greater than 50% likelihood, in the absence of any other evidence, of which there is an abundance.

19. My opinion based on the available evidence as cited above, is that, the balance of probability would support the defendant's claim of impaired erectile function.

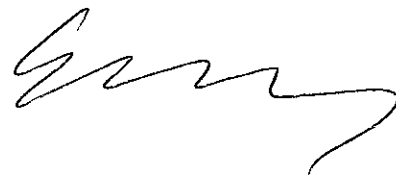
Respectfully yours,



Gerald Brock MD FRCSC

December 17, 2014

*Sworn before me
this 18th day of
Dec, 2014*



Division of Urology, Department of Surgery

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