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**SC Court of Appeals**

STATE OF SOUTH CAROLINA  
IN THE COURT OF APPEALS

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Appeal from Charleston County  
The Honorable Deadra A. Jefferson, Circuit Court Judge  
Appellate Case No. 2019-001945

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IN THE INTEREST OF THE CARE AND TREATMENT  
OF RONALD MJ GREGG,

APPELLANT

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**FINAL BRIEF OF RESPONDENT**

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ALAN WILSON  
Attorney General

DEBORAH R.J. SHUPE  
Senior Assistant Deputy Attorney General  
S.C. Bar No. 5098

Post Office Box 11549  
Columbia, SC 29211  
(803) 734-3727

ATTORNEYS FOR RESPONDENT

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## **STATEMENT OF ISSUE ON APPEAL**

The circuit court did not abuse its discretion in admitting evidence regarding a penile plethysmograph test performed by the State's expert, which she used in formulating her opinion, because the evidence established penile plethysmography is recognized and accepted in the field of sex offender evaluation and treatment as a reliable, objective measure of deviant sexual interests.

## **STATEMENT OF THE CASE**

Respondent concurs with Appellant's procedural Statement of the Case.

## STATEMENT OF FACTS

In 2008, Appellant Ronald MJ Gregg pled guilty in Charleston County to two counts of criminal sexual conduct with a minor in the second degree, and was sentenced to concurrent terms of fifteen years incarceration on each count. Prior to Appellant's release from incarceration, Respondent State of South Carolina commenced proceedings pursuant to the Sexually Violent Predator Act (SVPA) seeking Appellant's commitment to the South Carolina Department of Mental Health (DMH) as a sexually violent predator, for long term, control case and treatment. The matter was called for a jury trial on November 18, 2019, before the Honorable Deadra L. Jefferson, Circuit Court Judge.

Appellant moved to exclude any testimony by the State's expert regarding a penile plethysmograph (PPG) performed during a comprehensive psychosexual evaluation of Appellant's mental status and risk to reoffend sexually. The circuit court conducted a full evidentiary hearing pursuant to State v. Council,<sup>1</sup> during which Marie Gehle, Psy.D, of DMH, testified for Appellant and Emily Gottfried, Ph.D, of the Medical University of South Carolina (MUSC), testified for the State.

### **Dr. Gehle's Pre-Trial Testimony**

Dr. Gehle testified she had worked at DMH for ten years and performed approximately 250 sexual predator evaluations. She stated she was "familiar" with the PPG, but had never conducted one. Her knowledge regarding the PPG was based on "a lot of reading about it, studying about it." (Trial Transcript, Vol. 1 [TT Vol. 1], pp. 101-102, Record on Appeal [R.], pp. 75-76).

Her basic version of how the PPG works was that the individual is seated in a chair with a gauge around his penis, and then looks at and/or listens to different stimulus sets while the PPG

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<sup>1</sup>335 S.C. 1, 515 S.E.2d 508 (1999).

measures changes in the penis circumference during the stimulus sets, and she was “familiar to some degree” with the stimulus sets used by MUSC. From “what [Dr. Gehle] read,” the PPG “typically takes a couple of hours,” but she had “heard” the tests had taken a lot longer at the MUSC lab. Dr. Gehle testified she did not use the PPG “[b]ecause of the lack of standardization of the tests, subjectivity and the differences in the administration and interpretation of the test,” as well as “a lack of research supporting the reliability and validity of the stimulus sets.” (TT Vol.1, pp. 102-105; R., pp. 76-79).

On cross-examination, Dr. Gehle admitted she had never witnessed a PPG test being administered or interpreted. She further admitted she had never been trained on how to administer or interpret a PPG, and was not qualified or certified to operate a PPG machine. She acknowledged other DMH evaluators doing sexual predator evaluations under the SVPA did use the PPG as part of the evaluation process. She also acknowledged the only information she had regarding standardization issues was from articles, and she had never reached out to other professionals familiar with the PPG, or even the manufacturer of the PPG machine used by MUSC, to get additional information about those issues. (TT Vol. 1, pp. 116-122; R., pp. 90-96).

#### **Dr. Gottfried’s Pre-Trial Testimony**

Dr. Gottfried testified she is the director of the Sexual Behavior Clinic and Lab (SBCL) at MUSC, an assistant professor in psychiatry and behavior sciences at MUSC, and a licensed clinical psychologist in South Carolina. She stated the PPG is part of her standard protocol in SVPA evaluations, but it is only part of a comprehensive evaluation.

Dr. Gottfried testified she is a certified clinical analyst to read and report on the results from the Limestone manufactured PPG machine, which includes the stimulus set known as “Real Child Voices.” She explained the PPG test in detail, during which the examinee sits alone in a

comfortable chair in a private room, he is covered up and he puts a strain gauge on his penis. The examinee is presented with scenarios describing sexual situations with children, teenagers and adults, and his responses to the stimulus sets are compared to his arousal, or millimeters of change in the circumference of the penis, for consenting adults and stimuli. (TT Vol. 1, pp. 125-128; R., pp. 99-102).

Dr. Gottfried further testified MUSC uses a standardized measurement in its PPG, which is more conservative than the standard recommended in published literature, because having “a false positive would be an awful thing in a case like this.” “The literature recommends 10 percent of an erection, which is 2.5 millimeters, [MUSC uses] five millimeters.” She stated Canada uses one millimeter, and also includes child pornography in its stimulus sets, which is not legal in the United States. (TT Vol. 1, pp. 128-129; R., pp. 102-103).

As to standardization concerns, Dr. Gottfried testified she is a member of the International Standardization group, and the main standardization issue is the difference between countries regarding what images can be used in a PPG. Labs using the Limestone system do have a standardized method of interpreting the PPG, but there are labs that use their own stimuli or are able to show stimuli that other countries cannot use. The Real Child Voices stimulus set is part of the Limestone system, and between forty and eighty-five labs across the United States use it. (TT Vol. 1, pp. 129-130; R., pp. 103-104).

Dr. Gottfried testified the Fourth Edition of the Diagnostic and Statistical Manual (DSM-4) stated the reliability and validity of the PPG had not been well established. The Fifth Edition (DSM-5), which is the edition currently in use, however, states that “the most thoroughly researched and longest used of [psychophysiological] measures is penile plethysmography, although the sensitivity and specificity of diagnosis may vary from one site to another.” She

further testified the PPG has been subjected to peer review and publication, including at least 100 articles, based on studies of “thousands of subjects from lots of studies, and the studies found the PPG is reliable and consistent.

Dr. Gottfried stated the PPG is considered the “single best measure of deviant arousal and has good internal consistency.” She also stated the PPG is recommended in the professional guidelines of the Association for the Treatment of Sex Abusers, as well as mentioned in best practices textbooks, including practices for conducting sexually violent predator evaluations, as an important tool to consider or use. (TT Vol. 1, pp. 131-135; R., pp. 105-109).

Dr. Gottfried testified there are multiple quality control measures in the MUSC PPG lab, including training and certification by Limestone (the PPG machine manufacturer) of all lab personnel. The gauges used in PPG are calibrated multiple times in the same way, and the software will not let someone perform a PPG until the gauge is properly calibrated. There are also countermeasures to ensure reliability and consistency in administering PPG, including sound checks and standardized instructions used for every PPG. The PPG machine and software are designed to detect movements or other things that will affect the results, and the MUSC PPG lab has the highest certification a lab can obtain, meaning everything is standardized as required, including humidity and temperature in the lab. (TT Vol. 1, pp. 135-136; R., pp. 109-110).

According to Dr. Gottfried, the PPG is important to measure the examinee’s preferential arousals to certain stimuli, i.e., arousal to deviant stimuli compared to arousal to consenting adult scenarios. The MUSC PPG lab uses two stimulus sets: the Marshall stimulus set, which is older and uses a monotone male voice reading the scenarios; and the Real Child Voices stimulus set, with actual actors on a sound stage, and the examinee can hear background noise such as glasses

clinking and other people talking in addition to the narrator. (TT Vol. 1, pp. 136-137; R., pp. 110-111).

Appellant took two PPGs in the course of Dr. Gottfried's evaluation. The first PPG indicated Appellant moved a lot and there were a lot irregularities, but Appellant refused to answer any questions regarding what occurred during the PPG that might explain the irregularities. Appellant's first PPG results were "not interpretable" as a result of his body movements during it. Since the first PPG was unusable, Appellant was transported to MUSC for a second PPG. Dr. Gottfried testified the PPG results were only one data point she considered in Appellant's evaluation, and the results were not the sole basis of her ultimate diagnoses. (TT Vol. 1, pp.136-140; R., p. 110-114).

Dr. Gottfried testified there are differences between a polygraph and a PPG. She stated the polygraph looks at heart rate and other physiological markers, and the examiner administering the test interprets those markers to determine whether the person is lying or telling the truth. The PPG is not a lie detector, however, and is not designed to determine if the person committed a specific crime. Rather, the PPG shows patterns of arousal by looking at actual changes in the penis circumference between various stimulus sets. The PPG results do not depend on heart rate, or movement (except to the extent movement interferes with the PPG results interpretation). In interpreting the PPG results, the MUSC lab only considers an increased circumference of 5 millimeters or greater to be a significant arousal. (TT Vol. 1, pp. 140-142; R., pp. 114-116).

On cross-examination, Dr. Gottfried testified MUSC's cut score of 5 millimeters is conservative based on all the PPG studies, which have shown that anything under 10% of a full erection (cut score of 2.5) is not a valid way to score the results, and using the higher cut score minimizes the risk of false positive results. Dr. Gottfried stated using the higher score could also

increase false negative results, but in light of the potential consequences of a positive result, it was better to miss something than falsely say someone showed an arousal when they did not. She also stated looking at the PPG results in light of the examinee's own statements regarding their sexual interests can verify the validity of the results. (TT Vol. 1, pp. 144-145; R., pp. 118-119).

MUSC has studied its own data regarding the correlation between the examinee's interview responses to determine false negative or false positive results, and Dr. Gottfried testified the study was being prepared for peer review. She stated peer reviewed and approved abstracts of a study that included MUSC data and Canada's data specifically related to the Real Child Voices stimulus set, had been presented at several conferences, and the Real Child Voices data looked better than the older Marshall set, as well as a standardized set used in Canada. She testified the study was "pretrial accurate" when compared to "super normals," who are people who have no evidence of deviant sexual interest in children, and are selected by use of polygraph, the PPG, and criminal background checks. The presentations related to the peer reviewed and approved abstracts were presented at conferences in 2015-2019.<sup>2</sup> (TT Vol. 1, pp. 145-147, 159-162; R., pp. 119-121, 133-136).

### **Court Ruling**

The circuit court took the matter under advisement. At the beginning of the next day of the trial, the court heard testimony regarding Dr. Gottfried's qualifications. The court qualified Dr. Gottfried as an expert, and then made a preliminary ruling that the PPG test results were

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<sup>2</sup>Dr. Gottfried explained the conference peer review process, and testified she is a peer reviewer for many conferences, and actually chaired one of the conferences at issue. She received all the abstracts for psychiatry and behavioral sciences, and sent them for review by people who are considered experts in that field. The abstracts are assigned numerical scores in categories such as intellectual merit and innovativeness. The scores from multiple reviewers determine whether or not the subject should be presented at the scientific conference. (TT Vol. 1, p. 161; R., p.135).

admissible. The court found the evidence would assist the trier of fact and the subject was outside the realm of the ordinary juror's knowledge. The court further found the probative value of the evidence outweighed the prejudicial effect on Appellant. (Trial Transcript Vol. 2 [TT Vol. 2], pp. 19-27; R., pp 206-214).

In considering the reliability of the science underlying the PPG, the court considered the relevant cases, the parties' arguments, and the testimony of Dr. Gehle and Dr. Gottfried. The court also considered publications and peer review of the technique, prior applications and methods, quality control procedures used to ensure reliability, and the consistency of the method with recognized scientific laws and procedures.

On the issue of peer review, the court found Dr. Gottfried's testimony regarding the numerous publications and extensive peer review of the PPG to be credible. While there were no peer reviewed published articles regarding the Real Child Voices stimulus set, the Marshall stimulus set had been the subject of peer reviewed articles, and MUSC used both stimulus sets in Appellant's PPG. The court also noted Dr. Gottfried's membership in the International Standards Group assessing and creating standardizations and rules for the PPG, and her testimony the PPG is generally accepted within the psychological community. (TT Vol 2, pp. 27-29; R., pp. 214-216).

As to prior applications and methods, the court noted Dr. Gottfried testified MUSC has performed many PPGs, all the PPGs conducted at MUSC are conducted in the same manner, Appellant's PPG was conducted with the same hardware and software MUSC uses in all PPGs and the Real Child Voices stimulus set is part of the software used in between forty and eighty-five labs across the country. The hardware and software used by MUSC and across the country includes quality control procedures, and the company provides free test software, data pat gauges,

stimulus sets and other materials required to conduct PPG. (TT, Vol. 2, pp. 29-30; R., pp. 216-217).

On the issue of quality control procedures, the court found Dr. Gottfried is certified to operate the hardware and software used in MUSC's PPGs. MUSC's PPG lab is research certified at the highest level, and the lab is humidity and temperature controlled. The court also noted Dr. Gottfried's testimony that the gauges used in MUSC's PPG are calibrated several times before and during administration of a PPG, countermeasures are used, and the manufacturer includes standardized instructions with each machine. (TT Vol. 2, p. 30-31; R., p. 217-218).

The court also found MUSC uses a more conservative response threshold of 5 millimeters to measure significant responses within the PPG, which improves the reliability and reduces the number of false positives. The court noted MUSC uses this more prudent approach, which may allow people with deviant sexual interests to escape detection, because it limits false positives as much as possible. The court gave credence to Dr. Gottfried's testimony that a large portion of the unreliability often attributed to the PPG is due to smaller measurements used by other labs, and inconsistency between labs is due to the fact that labs outside the United States use photographs depicting child pornography while labs inside the United States do not. On the reliability issue, the court also found "as an aside" that Dr. Gehle's testimony was based on periodicals she had read, rather than first hand experience with the PPG. (TT, Vol 2, pp. 31-32; R., pp. 218-219).

As to the consistency of methods recognizing scientific laws and procedures, the court found the DSM-5 is an authoritative resource, and it recognizes use of the PPG. The DSM-5 states the PPG is the most thoroughly researched and longest used of physiological measures of sexual interest, although sensitivity and specificity may vary from site to site. (TT Vol. 2, pp 31-32; R., pp. 218-219).

The court found Dr. Gottfried's experience more extensive, and her testimony more credible on the issue of the PPG reliability. Based on its findings, the court ruled preliminarily that the PPG evidence was admissible, but reserved a final ruling until the testimony was proffered during trial. (TT, Vol. 2, pp. 32-33; R., pp. 219-220).

#### **Dr. Gottfried's Trial Testimony**

Before the jury, Dr. Gottfried was qualified as an expert in psychology and forensic psychology. She testified MUSC was retained to perform a pre-commitment evaluation of Appellant pursuant to the SVPA. As part of her evaluation protocol she reviews criminal history records, incident/police reports relating to the person's offenses, prison records, medical records and mental health records (if available), which is the type of information typically relied on by experts in her field.

After Dr. Gottfried reviewed all available documents and information regarding Appellant, he was transported to MUSC on several occasions for psychological testing, physiological testing, and clinical interviews, which included reviewing the tests results with him. Dr. Gottfried testified she used all of the information gathered during the evaluation process as data points in formulating her ultimate opinions. (TT Vol. 2, pp. 61-132; R., pp. 248-319).

Prior to Dr. Gottfried's testimony before the jury regarding Appellant's PPGs, the court heard proffered testimony from Dr. Gottfried regarding the PPG reliability, which was substantially the same as her testimony during the pre-trial hearing. The court confirmed its earlier ruling the evidence was admissible, specifically incorporating her pre-trial findings as if stated again verbatim. (TT Vol. 2, pp. 133-151; R., pp. 320-338).

Dr. Gottfried then testified before the jury about the multiple tests performed during Appellant's evaluation, some of which indicated Appellant had not been "forthcoming" regarding

his sexual history. She also testified about the PPG in general, what it is designed to measure, show the machine measures it, and the stimulus sets used in the PPG. As to Appellant's PPG results, Dr. Gottfried testified he showed significant clinical arousal to eight out of ten scenarios involving coercive sexual behavior. (TT Vol. 2, pp. 153-171; R., pp. 340-358).

Dr. Gottfried also testified about Appellant's score of five on an actuarial risk assessment instrument, which was in the above average risk category for reoffending sexually. His score was in the 88.7 percentile, meaning he scored higher than eighty-five out of a hundred people in the study, and indicated he was 2.7 times more likely to reoffend than someone with a lower score. (TT Vol. 2, pp. 171-177; R., pp. 358-364).

Dr. Gottfried then testified about Appellant's dynamic risk factors for re-offending, which could be addressed in treatment. His risk factors include a history of sexual deviation, with a stable pattern of sexual arousal to non-consent, characteristics of psychopathy, antisocial personality disorder, potential or partial relationship problems and instability, possible employment problems, a diverse criminal history with numerous arrests and convictions, a history of problems with chronic sexual offending with diverse victims, psychological coercion (threats and manipulation) and grooming behavior, extreme minimization/denial, unrealistic plans for the future, and a negative attitude toward supervision. (TT, pp. 177-181; R., pp. 364-368).

Based on all the data collected during Appellant's evaluation, Dr. Gottfried opined he has a paraphilic coercive disorder, characterized by urges, fantasies or behavior involving coercive sexual acts toward non-consenting victims. She opined that having paraphilic coercive disorder and acting on it made Appellant dangerous.

She also diagnosed him with antisocial personality disorder, based on his repeated failure to follow rules and conform to the standards of society, and may include deceit, impulsive conduct,

irritability that may rise to the level of aggression, disregard for his own safety or the safety of others, irresponsibility and lack of remorse. In addition, there was evidence Appellant exhibited these characteristics prior to the age of fifteen. (TT Vol 2, pp. 181-185; R., pp. 368-372).

Dr. Gottfried concluded to a reasonable degree of psychological certainty that Appellant suffers from a mental abnormality or personality disorder, which affects his emotional or volitional control or capacity such that he is predisposed to commit future acts of sexual violence. She testified he has the propensity to be dangerous which poses a menace to the health and safety of others, he has serious difficulty controlling his behavior, he should be confined in a secure facility for long term control, care and treatment, and he meets the SVPA criteria for civil commitment as a sexual predator. (TT, pp. 185-188; R., pp.372-375).

#### **Dr. Gehle's Trial Testimony**

Dr. Gehle was qualified as an expert in forensic psychology and sexually violent predator evaluations. She testified she reviewed the same information Dr. Gottfried described, and interviewed Appellant three times. Like Dr. Gottfried, she diagnosed Appellant with antisocial personality disorder. (TT Vol. 2, pp. 247-255; R., pp.434-442).

Dr. Gehle also testified she did not find a connection between Appellant's antisocial personality disorder and his sexual offending. She determined that his first sexual conviction involved a fourteen year old female who did not fight with Appellant during the incident, even though the victim did not want to have sex with him, so she "acquiesced" and force was not used. As to the second victim, Appellant pretended to be law enforcement, and she did not "even know if the girls thought they were being sexually offended against" because he told them he was investigating a crime and took (naked) pictures of them, but there was no evidence Appellant was sexually aroused or engaged in sexual gratification. (TT Vol. 2, pp. 260-264; R., pp. 447-451).

Dr. Gehle further testified she did not conduct a PPG because it “has a lot of problems with the research foundation of it.” She further testified the PPG “is rarely used in these precommitment (sic) evaluations.” She did score the actuarial risk assessment tool, and like Dr. Gottfried, arrived at a score of five for the Appellant, putting him in the high risk category for reoffending sexually. (TT Vol 2, pp 271-274; R., pp. 458-461).

The jury found beyond a reasonable doubt that Appellant is a sexually violent predator, and the circuit court placed him in the custody of the South Carolina Department of Mental Health for long term control, care and treatment. (TT Vol 2, pp. 350-351, Order of Commitment filed November 21, 2019; R., pp. 537-538, 565). This appeal followed.

## STANDARD OF REVIEW

“The admission or exclusion of evidence is a matter within the trial court's sound discretion, and an appellate court may only disturb a ruling admitting or excluding evidence upon a showing of a manifest abuse of discretion accompanied by probable prejudice.” State v. Jackson, 384 S.C. 29, 681 S.E.2d 17, 19 (Ct. App. 2009). “The qualification of an expert witness and the admissibility of the expert's testimony are matters within the trial court's sound discretion.” State v. Prather, 429 S.C. 583, 840 S.E.2d 551, 559 (2020) (quoting State v. Chavis, 412 S.C. 101, 771 S.E.2d 336, 338 [2015]). “A trial court's decision to admit or exclude expert testimony will not be reversed absent a prejudicial abuse of discretion,” which “occurs when the conclusions of the [trial] court are either controlled by an error of law or are based on unsupported factual conclusions.” *Id.* (alteration in original).

## ARGUMENT

**The circuit court did not abuse its discretion in admitting evidence regarding a penile plethysmograph performed by the State's expert which she used in formulating her opinion, because the evidence established penile plethysmography is recognized and accepted in the field of sex offender evaluation and treatment as a reliable, objective measure of deviant sexual interests.**

Appellant contends the circuit court erred in admitting Dr. Gottfried's testimony regarding the PPG conducted as part of the comprehensive psychosexual evaluation of Appellant's mental status and risk to reoffend. This contention is premised on an extremely truncated version of Dr. Gottfried's testimony essentially ignores the circuit court's extensive findings supporting admissibility, as well as the context of the evidence as it related to the SVPA proceedings.

The SVPA created a non-punitive, civil process for the commitment and treatment of sexually violent predators. In re Care & Treatment of Canupp, 380 S.C. 611, 671 S.E.2d 614, 617 (Ct. App. 2008) (*citing In re Matthews*, 345 S.C. 638, 550 S.E.2d 311, 316 [2001] [the United States Supreme Court deemed Kansas' Sexually Violent Predator Act, on which the South Carolina Act is modeled, to be a civil, non-punitive scheme]); In re Care and Treatment of Brown v. State, 372 S.C. 611, 643 S.E.2d 118, 121 (Ct.App.2007). "The Act is designed to: (1) meet the special needs of sexually violent predators; (2) address the significant likelihood that they will engage in repeated acts of sexual violence if not treated for their mental conditions; and (3) assess the risks requiring their involuntary civil commitment in a secure facility for long-term control, care, and treatment." Brown, 643 S.E.2d at 621 (*citing* S.C. Code Ann. §44-48-20). A "'person's dangerous propensities are the focus of the SVP Act.'" In re Care & Treatment of Ettel, 377 S.C. 558, 660 S.E.2d 285, 287 (Ct. App. 2008) (*quoting In re Care and Treatment of Corley*, 353 S.C. 202, 577 S.E.2d 451, 453 [2003]).

In considering the admissibility of scientific evidence, the court looks at several factors, including: (1) the publications and peer review of the technique; (2) prior application of the method to the type of evidence involved in the case; (3) the quality control procedures used to ensure reliability; and (4) the consistency of the method with recognized scientific laws and procedures. State v. Jones, 343 S.C. 562, 541 S.E.2d 813, 819 (2001). This type of evidence is also subject to attack for relevancy and prejudice, and once the evidence is admitted, the jury may give it such weight as it deems appropriate. Council, 515 S.E.2d at 517-518.

In this case, the circuit court heard extensive testimony regarding the reliability of PPG including first-hand experience, research studies and publications, as well as how Appellant's PPG test results were relevant to Dr. Gottfried's ultimate opinion. Based on the evidence, the court then made extensive findings as to each of the four requirements for admission of scientific evidence.

#### **A. Publications and Peer Review of the Technique**

Dr. Gehle testified she had done "a lot of reading" and "studying" about the PPG, and mentioned various articles criticizing the reliability and validity of the PPG.<sup>3</sup> (TT Vol 1, pp. 102-116; R., pp. 76-90). On cross-examination, she admitted she had never received training on how to administer or interpret a PPG, and that other psychologists and psychiatrists have used PPG testing in connection with SVPA pre-commitment evaluations. She acknowledged DMH actually has a PPG machine that is no longer used, and stated she "went" to the DMH lab when it was being used, but she never testified she had actually witnessed first-hand a PPG test being administered

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<sup>3</sup>Dr. Gehle even referenced "several different things" written by the developer of the Marshall stimulus set, which she stated recommended the PPG not be used at all. (TT Vol 1, pp. 106-108; R., pp. 80-82). Dr. Gottfried testified, however, that she was familiar with a 2014 article by the developer discussing the benefits and problems with the PPG, as most authors did in articles regarding the PPG, but it was "an overstatement" to say he concluded the PPG should not be used. (TT Vol. 1, pp 137-138; R., pp. 111-112).

at DMH or any other PPG lab.<sup>4</sup> She also admitted she never contacted the PPG machine manufacturer to get information regarding the machine hardware or software, or how many labs use the software the manufacturer loads onto every machine it sells. (TT1, pp. 116-122; R., pp. 90-96).

On re-direct, Dr. Gehle testified that no research studies regarding the reliability or validity of the Real Child Voices stimulus set had been published. (TT Vol 1, p. 123; R., p. 97). In short, Dr. Gehle's knowledge regarding the PPG and stimulus is limited to what she "read" about them, with absolutely no actual experience with the PPG, or any personally performed research study on the PPG itself.

In contrast to Dr. Gehle, Dr. Gottfried has extensive first-hand experience with the PPG, and is certified to read and interpret PPG results. She supervises a department at MUSC that includes a highly certified PPG lab, with highly trained personnel to operate it. She is involved in national and international organizations regarding behavioral sciences, and sits on a committee working to establish international standards for administering and interpreting PPG results. She testified the PPG has been the subject of at least 100 peer reviewed articles, and "is called the single best measure of deviant arousal and has good internal consistency." (TT Vol. 1, pp. 125-129, 135-136; R., pp. 99- 03,109-110).

As to the Real Child Voices stimulus set, Dr. Gottfried testified it is standard software included with the PPG machine used in the MUSC PPG lab, and is currently used in multiple PPG labs across the United States and in Canada. (TT Vol 1, p. 130; R., pp.104). In conjunction with

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<sup>4</sup>Dr. Gehle did admit the private company DMH contracted with to provide the treatment after a person is committed has a PPG machine and uses it in connection with assessing the person's treatment. (TT Vol. 1, pp. 121-122; R., pp. 95-96). As a matter of pure logic, if the PPG is a reliable and valid way to gauge a person's progress after they enter treatment, it is a reliable and valid way to establish a baseline for the person's sexual interests before they begin treatment.

Canadian professionals utilizing the Real Child Voices stimulus set, Dr. Gottfried is actively involved in research on the efficacy of the stimulus set, and there have been several conference abstracts relating to studies regarding the reliability and validity of the stimulus set that were peer reviewed and approved before the conference presentations in 2015-2019. She testified three out of the four peer reviewed abstracts concluded the Real Child Voices stimulus set was superior to the Marshall stimulus set.<sup>5</sup> (TT Vol. 1, pp. 159-164; R., pp. 133-138).

### **B. Prior Application of the Method Involved**

Dr. Gottfried testified about the science involved in a PPG test, including how the PPG works, what it is intended to measure, and how it is conducted. She candidly acknowledged certain standardization issues remain, particularly internationally, but testified the PPG is now recognized in the DSM-5 as the most thoroughly researched and **longest used** psychophysiological measures of sexual interests. (TT Vol. 1, pp. 127-135; R., pp. 101-109).

She further testified the Real Child Voices stimulus set is widely used in PPG labs nationally and internationally. On-going research studies in which she is involved have indicated the Real Child Voices stimulus set results are superior to the results of the Marshall stimulus set that has been widely used longer, but MUSC uses both sets in all PPG conducted in its lab. (TT Vol. 1, pp. 127- 137, 141-150; R., pp. 101-111, 115-124).

Appellant presents Dr. Gehle's testimony regarding the PPG's reliability and validity as authoritative in spite of her absolute lack of **any** training or first-hand experience regarding the PPG. As the circuit court noted, "Dr. Gehle's testimony really dealt with periodicals she had read,

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<sup>5</sup>In contrast to Dr. Gehle, Dr. Gottfried has actually watched and listened to both the Marshall and Real Child Voices stimulus sets. (TT Vol. 1, pp. 152-153; R., pp. 126-127). Thus, Dr. Gottfried can testify authoritatively about what is involved in each set, and how the sets compare.

instead of first-hand experience; as well as references to labs outside of the United State that use the less standardized approach.” (TT Vol. 2, p. 31; R., p. 218).

By way of footnote, Appellant claims the court’s finding that Dr. Gottfried was more credible than Dr. Gehle because of the difference in their levels of experience is “problematic and illogical,” because it discredits Dr. Gehle for refusing “to use a test she considers unreliable.” (Brief of Appellant, p. 7, n. 2). Rather than being problematic and illogical, the court’s credibility finding is clearly supported by the testimony, and the court can certainly consider the lack of first-hand experience in determining the credibility of an expert witness.

In addition to her lack of first-hand experience, Dr. Gehle could not speak with any authority about the PPG because she never even witnessed one, received no training about it, and there was absolutely no evidence she ever made any effort to realistically investigate the efficacy of the PPG, especially as it has developed over time. Instead, Dr. Gehle preferred to “read” and “study” articles reaching the conclusion she desired, while ignoring over 100 “peer reviewed and published” articles describing studies regarding the PPG, which conclude it is a reliable and valid physiological measure of sexual arousal.<sup>6</sup>

Appellant’s assertion that Dr. Gehle could testify authoritatively regarding the reliability of the PPG is belied by the analysis of the expert testimony found lacking in In the Matter of the Care and Treatment of Bilton, 432 S.C. 157, 851 S.E.2nd 442 (Ct. App. 2020). In Bilton, this Court held the State’s expert was not qualified to testify about the PPG because she possessed only

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<sup>6</sup>The inherent fallacy of Appellant’s argument is amply demonstrated by the example he cites – a phrenologist versus a neurologist. Phrenology (a largely discredited pseudoscience) and neurology (a medical science) are two completely different fields. A phrenologist studies the contours of the skull to predict character, while a neurologist is a medical doctor concerned with the structure, function and diseases of the nervous system. See <https://www.merriam-webster.com/dictionary/phrenology> and <https://www.merriam-webster.com/dictionary/neurology>.

a basic familiarity with the PPG, and how it is performed, she had never seen one performed, and was not familiar with the stimulus sets and machine. *Id.* at 445. If the Bilton court found the State’s expert’s qualification and experience with the PPG was insufficient to establish reliability, Dr. Gehle’s lack of qualification and experience with the PPG renders her testimony insufficient to establish the PPG is not reliable. In this case, the court found Dr. Gehle’s testimony on the issue of the PPG reliability was facially insufficient. Indeed, the court mentioned Dr. Gehle’s “testimony” as an aside.”

### **C. Quality Control Procedures**

Dr. Gottfried testified the MUSC PPG lab uses multiple quality control measures. All lab personnel are trained and certified by the machine manufacturer, and are credentialed to perform their part of the tests. Each gauge is calibrated multiple times using the same method, and the machine software does not allow a test to begin until the gauge is properly calibrated. There are countermeasures to ensure everything is reliable and performed in the same way, including sound checks to make sure all the sound equipment is working properly. The lab uses standardized instructions from the manufacturer for every PPG test it conducts, and the humidity and temperature inside the lab is controlled. In addition, every step in the process from administration to analysis is performed in the same standardized way. (TT Vol 1, pp. 135-136; R., pp. 109-110).

### **D. Consistency of the Method with Recognized Scientific Laws and Procedures**

Dr. Gottfried testified about the physiological responses the PPG is designed to measure, and how the PPG machine measures those responses. In addition, she testified the DSM-5 recognizes the use of PPG testing, states physiological measures of sexual interest may sometime be useful, and further states the PPG is “the most thoroughly researched and longest used of such measures.” (TT Vol. 1, pp. 132-133; R., pp. 106-107).

After hearing the evidence and arguments, the circuit court made extensive findings as to each of the Jones reliability factors, and ultimately concluded the PPG satisfies each factor. (TT Vol. 2, pp. 25-33, 151; R., pp. 212-220, 338). Appellant cites limited portions of Dr. Gottfried's testimony, out of context, in an effort to direct the Court's attention away from her overall compelling testimony. When considered as a whole, the record amply supports the circuit court's findings and conclusion.

Boiled down to its essence, Appellant's primary contention is there are no "published" peer review articles regarding the Real Child Voices stimulus set, but he makes a mere passing reference to Dr. Gottfried's testimony that the stimulus set has been subjected to "peer review" via research abstracts submitted in connection with multiple national and international conference presentations between 2015-2019. He also discounts Dr. Gottfried's testimony regarding the on-going efforts to compile data from multiple labs, including MUSC's lab, for the express purpose of submitting an article for peer review and publication, referring to her testimony as a mere "claim."

Ultimately, Appellant conflates the two prongs of the first Jones factors, which are peer review **and** publications regarding the technique. Neither Jones nor its progeny require "peer reviewed publications" regarding each component of a scientific technique. In this case, the evidence established there are numerous peer reviewed publications regarding the PPG test's reliability and validity, which Appellant does not dispute, and abstracts regarding study of the Real Child Voices stimulus set have been peer reviewed and approved for presentations at multiple conferences. Taking Appellant's argument to its logical conclusion, a scientific technique could never be admitted as evidence in the absence of "peer reviewed publications" regarding each component of the technique, such as use of a new test tube during a DNA test, regardless of how widely the new test tube is used in DNA labs.

Appellant’s comparison of the PPG test to the polygraph is unavailing. Both the polygraph and the PPG measure physical changes, but the PPG differs significantly in that the machine measures the size of an erection, which is either there or it is not. Unlike the polygraph, which is based on questions developed by the examiner in connection with a particular incident and the examiner makes subjective interpretations of responses as they occur, the PPG technician makes no such interpretation. The PPG results, i.e., the size of the penis erection during certain stimuli, are recorded by the machine with the technician in a separate room. The evaluator then reviews the results and compares the level of arousal to one stimulus set versus another set, which is done by mathematical formula. Experts can disagree about the significance of one arousal over another, but that is no different than any other issue subject to expert opinion.

Appellant also argues the circuit court erred because other jurisdictions have excluded evidence regarding the PPG test, even citing a Ninth Circuit Court of Appeals case asserting “courts are uniform” in excluding PPG test results. This assertion misrepresents the state of PPG acceptance by the mental health community and the courts.

In the mental health community, the PPG “is a widely recognized means of measuring male sexual arousal to given stimuli,” and “has become a standard objective measure of arousal and is considered by some researchers and clinicians to be essential in the assessment and treatment of male sex offenders and men with paraphilic interests.” Murphy, L., *et. al.*, Standardization of Penile Plethysmography in Assessment of Problematic Sexual Interests, J. Sex. Med. 12(9): 1853-1861 (2015); *see also* Murphy, L., *et. al.*, Assessment of Problematic Sexual Interests with the Penile Plethysmograph: an Overview of Assessment Laboratories, Current Psychiatry Reports 17(5):567 (2015) (PPG “is an objective assessment of sexual arousal based on the change in penis circumference and volume due to increased vasocongestion in the penis”); Howes R. J. & Howes,

S. E., Sexual Arousal as a Function of Stimulus Mode: Implications for Phallometric Assessment, J. Forensic Res. 8(6):398 (2017) (PPG is “[p]erhaps the best means of objectively measuring deviant sexual interest”).

The PPG has undergone Federal Drug Administration review, and the FDA has approved several PPG systems, including the Limestone system used in this case. *See* 501(k) Summary – Limestone Technologies, Inc. ([https://www.accessdata.fda.gov/cdrh\\_docs/pdf5/K052929.pdf](https://www.accessdata.fda.gov/cdrh_docs/pdf5/K052929.pdf)). In addition, the Medicaid/Medicare regulations provide coverage for PPG tests. *See* Federal Register Volume 72, Number 61, Addendum III and Addendum V (Friday, March 30, 2007) (<https://www.gpo.gov/fdsys/pkg/FR-2007-03-30/html/07-1414.htm>). Major insurance companies, such as Blue Cross Blue Shield, also recognize the PPG as a medical procedure, and either provide limited coverage, or exclude it from coverage. *See* Blue Cross Blue Shield of Texas, Treatment of Male Sexual Dysfunction, Special Comment on Contract Exclusions (January 7, 2003) (<https://www.bcbstx.com/provider/pdf/medicalpolicies/surgery/717-010.pdf>). The Federal Government’s and insurance companies’ recognition of the PPG as a valid medical device and procedure amply demonstrates its general acceptance.

As Dr. Gottfried testified, the principal purpose of the PPG in sexual offending behavior evaluations is determining an individual’s level of risk to commit acts of sexual aggression by measuring the extent to which the individual is dominated by sexual arousal to deviant stimuli, and predictions of risk to re-offend “are rendered much more accurate by the inclusion of data from this technique.” Howes, R. J., Measurement of Risk of Sexual Violence Through Phallometric Testing, Legal Medicine 11:368-369 (2009). “Although not universally embraced, there nonetheless remains widespread acceptance and recognition of the value of phallometric assessment,” and it “is certainly an assessment procedure which has come a long way since it was

first devised.” Howes & Howes, *supra* (emphasis added). See also Dean Tong, The Penile Plethysmograph, Abel Assessment for Sexual Interest, and MSI-II: Are They Speaking the Same Language?, 35 Am. J. of Fam. Therapy, 187, 190 (2007) (“The PPG, when administered properly, represents a direct and objective measurement of a man’s level of sexual arousal to normal versus sexualized stimuli. Since there is a strong relationship between an individual’s pattern of sexual arousal and the probability that he may or will act upon that arousal, an important first step in gauging one’s propensity to sexual deviancy is to obtain an accurate assessment of that person’s sexual arousal patterns, which is precisely what the PPG does.”); James M. Peters, Assessment and Treatment of Sex Offenders: What Attorneys Need to Know, Advocate, 23 (Dec. 1999) (PPG “is invaluable in the evaluation, treatment and management of known sexual offenders.”).

As Dr. Gottfried testified, further evidence of the PPG’s general acceptance in the mental health community, and perhaps the strongest evidence, is the reference to it in the DSM-V. provides:

The most widely applicable framework for assessing the strength of a paraphilia itself is one in which examinees’ paraphilic sexual fantasies, interest and behaviors are evaluated in relation to their normophilic sexual interests and behaviors. In a clinical interview or on self-administered questionnaires, examinees can be asked whether the paraphilic sexual fantasies, urges or behaviors are weaker than, approximately equal to, or stronger than their normophilic sexual interest sexual interests and behaviors. **The same type of comparison can be, and usually is, employed in psychophysiological measures of sexual interest, such as penile plethysmography in males or viewing time in males and females.**

DSM-V 686 (emphasis added). It further provides:

Psychophysiological measures of sexual interest may sometimes be useful when an individual’s history suggest the possible presence of pedophilic disorder but the individual denies strong or preferential attraction to children. **The most thoroughly researched and longest used of such measures is penile plethysmography**, although sensitivity and specificity of diagnosis may vary from one site to another.

DSM-V 699 (emphasis added). Previous DSM versions did not recognize the PPG, however, by the time the DSM-V was published in 2013, there was sufficient research indicating the PPG’s validity as a tool to measure an individual’s sexual interest.

Courts have also recognized the general acceptance and admissibility of the PPG in sexually violent predator cases. In In re Detention of Halgren, 156 Wash. 2d, 132 P.3d 714 (2006), the Washington Supreme Court found PPG results were admissible as part of the diagnostic process, and the PPG testimony would assist the jury in understanding the expert’s sexual deviancy diagnosis. *Id.* at 719. The court further found the issue of the PPG’s reliability goes to the weight of the evidence rather than its admissibility *Id.*; *see also* In re Detention of Herrick, 198 Wash. App. 439, 393 P.3d 879, 885 (2017), *aff’d*, 190 Wash. 2d 236, 412 P.3d 293 (2018)(same).<sup>7</sup>

The Illinois appellate court also found PPG evidence was admissible in In re Commitment of Sandry, 367 Ill.App.3d 949, 858 N.E.2d 295 (2006). As to the admissibility of a particular test or methodology, the court stated: “once it is determined that a methodology is generally accepted, it follows that it has achieved a sufficient degree of reliability and validity to cross the threshold of admissibility.” *Id.* at 309. The court then engaged in an exhaustive analysis of case law (use of PPG mentioned in at least 21 states, including South Carolina), statutes [eleven state statutes] and regulations). *Id.* at 310-313.

The court also discussed numerous academic articles, which it determined provided ample support “to conclude that PPG testing is accepted by a substantial number of experts in this field such that it may be used to support a qualitative assessment of the future dangerousness of an individual.” *Id.* at 309-316. Acknowledging some experts have criticized and rejected PPG

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<sup>7</sup>Significantly, Washington’s sexual predator statute expressly gives the courts the discretion to order the person to comply with a PPG if requested by the evaluator. 412 P.3d at 295-296; RCW §71.09.050(1).

testing, the court noted the existence of contrary authority is not dispositive because many people could disagree on the acceptance of any given methodology, but those who accept it may still constitute a significant subset of experts in any given field. *Id.* at 316; *see also State v. Graham*, 275 Kan. 176, 183, 61 P.3d 662, 667 (2003) (some disagreement in the scientific and medical community as to the reliability of a particular test method is a matter affecting the weight of such evidence and not its admissibility; such evidence is admissible if a qualified expert witness testifies the particular test method is reliable and accurate, and it is generally accepted as such by other experts in the field).

Thus, the tide is definitely changing in favor of recognizing the PPG as reliable and admissible evidence. This is particularly true in connection with sexually violent predator cases.

The record amply supports the circuit court's ruling and the jury's verdict. Accordingly, Appellant's commitment as a sexually violent predator should be affirmed.

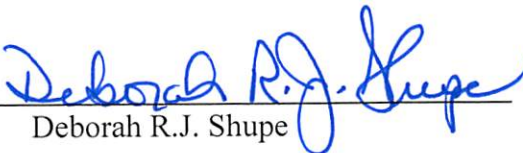
**CONCLUSION**

Based on the foregoing, the State respectfully submits the judgment of the circuit court and Appellant's civil commitment pursuant to the SVPA should be affirmed.

Respectfully submitted,

ALAN WILSON  
Attorney General

DEBORAH R.J. SHUPE  
Senior Assistant Deputy Attorney General  
S.C. Bar No. 5098

BY:   
Deborah R.J. Shupe

Office of the Attorney General  
Post Office Box 11549  
Columbia, SC 29211  
(803) 734-3727

ATTORNEYS FOR RESPONDENT

May 11, 2021

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**SC Court of Appeals**

STATE OF SOUTH CAROLINA

IN THE COURT OF APPEALS

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Appeal from Charleston County  
The Honorable Deadra A. Jefferson, Circuit Court Judge  
Appellate Case No. 2019-001945

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IN THE INTEREST OF THE CARE AND TREATMENT  
OF RONALD M.J. GREGG,

APPELLANT

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**CERTIFICATE OF COUNSEL**


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The undersigned certifies this Final Brief of Respondent complies with Rule 211(b), SCACR, and the April 15, 2014, order from the South Carolina Supreme Court entitled, "Revised Order Concerning Personal Identifying Information and Other Sensitive Information in Appellate Court Filings.:

ALAN WILSON  
Attorney General

DEBORAH R.J. SHUPE  
Senior Assistant Deputy Attorney General

BY:

  
Deborah R.J. Shupe

Office of the Attorney General  
Post Office Box 11549  
Columbia, SC 29211  
(803) 734-3727

ATTORNEYS FOR RESPONDENT

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