F21 Secure Continuous Remote Alcohol Monitor (SCRAM): Judicial Liaison As Expert Witness Controverted

Donald J. Ramsell, JD, Wheaton, IL 60187; Gil Sapir, JD, Chicago, IL 60680; Raul Ayala, JD, Los Angeles, CA 90012*

Learning Overview: After attending this presentation, attendees will appreciate the necessity of questioning credentials, qualifications, and competency of SCRAM's crafted expert witness.[1]

Impact on the Forensic Science Community: This presentation will impact the forensic science community through recognition and understanding of an expert witness pursuant to Federal Rules of Evidence and *Daubert* criteria.[2,3]

SCRAM has problems with its product, marketing, and usage, which appear compounded through its expert witnesses.[1] The expert witness' existence is created and perpetuated by the legal system. But for the Rules of Evidence, consulting and testimonial evidence would not exist. Expert witnesses are derived from five general categories of expertise: lay people; technician/examiner; practitioner; specialist; and scientist based upon their knowledge, education, skill, practical experience, and training.[4] They are hired in anticipation of litigation. Experts have an ethical duty of candor and full disclosure. Omissions and misrepresentations may be considered ethical violations. Judges control the determination of good science, evidential reliability, expert witness qualifications, and competency under *Daubert*.[3] The expert may be qualified but not competent to testify and offer their opinion. However, as litigation support professionals, they are responsible for the losses they cause to foreseeable plaintiffs, including violations of a person's civil rights.[5-9]

SCRAM is designed to measure alcohol content while it diffuses through a person's skin as insensible perspiration.[10] It is manufactured by Alcohol Monitoring Systems, Inc. The device, worn as an ankle bracelet, is commercially available to law enforcement agencies and privately operated correctional institutions. It is primarily designed and marketed for court-ordered alcohol monitoring of Transdermal Alcohol Concentration (TAC) readings.[11]

SCRAMs have limitations. TAC does not directly correlate to blood alcohol concentration in a SCRAM.[12] SCRAMs are useful in general population biomonitoring of self-induced alcohol consumption as a passive preliminary testing device. The manufacturer's criteria conveys SCRAM can reliably detect the consumption of five or more standard beers or drinks, and 45.9% of all occasions of drinking one to three beers went undetected when using SCRAM's 0.02g/dl as a threshold.[13-15]

SCRAM offers litigation support to consumers of it products through expert witness services. SCRAM's "judicial liaison" testified as an expert witness concerning the credibility and reliability of SCRAM CAM SMO2 results in *U.S. v. Colby*.[16,17]

Based on the *Colby* record, SCRAM's "judicial services liaison" possess controvertible expert witness qualifications consisting of: being an attorney; in-house administrative experience as a business product manager; conducting product service and promotional lectures; and completing two SCRAM operator training courses. SCRAM's expert severely lacks expected credentials: a formal science education; specialized knowledge; demonstrable expertise; any publications; scientific memberships; and published subject research.

Selected random *Colby* issues include: (1) limited knowledge of the fuel cell; (2) calibration standards and procedure not subjected to scientific scrutinization and criticization; (3) questionable basis of published analytical tolerance; (4) yearly calibration standards not maintained; (5) asserting average fuel cell life span is less than a year conflicts with SCRAMS annual calibration; (6) device diagnostics being irrelevant to calibration; (7) fuel cell and pump degradation only issues adversely affecting accuracy; (8) exhaust/contamination test conducted without supporting data; (9) misdirected authentic peer-review studies and topics (transdermal studies not SCRAM studies); (10) false positive authenticity rate less than 1%; (11) SCRAM studies conducted on earlier generation devices or not using SCRAM analytical software or analysts to determine positives and negatives; and (12) SCRAM lowered testing standards for confirmed positives several times over the years. Missing were relevant peer-review studies discussing revised methodology requirements, false positive rates, current cited cases, controlled testing for false positives, and actual situations with double-blind testing.

Initial concern is whether the SCRAM device is accurate and reliable to identify and measure TAC.[18,19] SCRAM seemingly presents tenuous and dubious expert witnesses and selective marketing data without adhering to governmental or industry reliability standards. The perceived lack of quality, candor, and competent expert witness testimony reasonably corroborates SCRAM's diminished product stature, controversial evidential value, and invites professional sanctions for its expert witness. Competent oversight and greater scrutiny should be used.

Limitations of SCRAM devices and TAC data is arguably skewed or specious through marketing and other claims, including shaped and shaded judicial liaison testimony. Apparently, public policy against alcohol intoxication cases continues to detrimentally transcend expert witness ethics, qualifications, and competency.

Reference(s):

1. SCRAM is the registered trademark of Alcohol Monitoring Systems, Inc.(AMS), Littleton, Colorado.
2. Fed. R. Evid.701-706 and Fed. R. Civil Proc.26.
3. *Daubert v. Merrill Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).
4. Gil Sapir. Qualifying the Expert Witness: A Practical Voir Dire. *Forensic Magazine*, vol.4, no.1, February/March 2007, p.30.
5. *Mattco v. Forge, Inc. v. Arthur Young & Co.*, 52 Cal.App.4th 820, 834-835 (Ct. App. 1977).
6. *Murphy v. AA Mathews*, 841 S.W.2d 671, 674 (Mo. 1992).
7. *Marrogi v. Howard*, 805 So.2d 1118, 1124-1125, 1128 (La. 2002).
8. *Armstrong v. Daily*, 786 F.3d 529 (7th Cir. 2015).

*Presenting Author

9. Gil Sapir, Legal Aspects of Forensic Science. Chp. 1, in *Forensic Science Handbook*, vol.I, 3rd ed, Richard Saferstein and Adam Hall, ed., CRC Press, (in press) c.2019.
10. D.J. Brown. A method for determining the excretion of volatile substances through skin. *Methods Find Exp Clin Pharmacol.* 1985 May;7(5):269-74. https://www.scramsystems.com/about/ (accessed 07/29/18).
11. Marques, P.R., A.S. McKnight, and NHTSA DOT HS 810 875. *Evaluating Transdermal Alcohol Measurement Devices.* Final Report November 2007.
12. *SCRAM Calibration Process, Technical Overview*, (AMS) p.2 Oct. 10, 2004.
13. J.D. Roache et. al. Using Transdermal Alcohol Monitoring to Detect Low-Level Drinking. *Alcohol Clin Exp Res*, 2015 Jul; 39(7): 1120–1127.
14. N.P. Barnett et. al. Predictors of Detection of Alcohol Use Episode During a Transdermal Alcohol Sensor. *Exp. Clinical Psychopharmacol,* 2014 February; 22(1):86-96.
15. Donald Ramsell and Gil Sapir. Secure Remote Alcohol Monitor (SCRAM) Test Results: Fact, Fiction, Puffery, Rhetoric, and Hokum., *Proceedings of the American Academy of Forensic Sciences*, 71st Annual Scientific Meeting, Baltimore, MD. 2019.
16. *United States v. Daniel J. Colby*, No. ED CR No.17-196-JGB-JLS, U.S. Dist. Court, Central Dist. of Calif., Southern Div. at Santa Ana, revocation hearing, March 20, 2019.
17. Bracelet SCRAM CAM model SMO2, serial #125173, Lisa Kennedy (judicial liaison) expert witness for SCRAM; https://www.scramsystems.com/scramsystemsillinois/about-us/management/ (accessed March 20, 2019).
18. N.P. Barnett, et. al. Predictors of Detection of Alcohol Use Episode During a Transdermal Alcohol Sensor. *Exp. Clinical Psychopharmacol,* 2014 February; 22(1):86-96.
19. SCRAM PowerPoint. *Continuous Alcohol Monitoring and the SCRAM System—Greater Youth Initiative.* Sept. 11, 2009, presentation.

SCRAM, Expert Witness, *Daubert*

*Presenting Author