

TEXAS FORENSIC SCIENCE SEMINAR 2010

October 7 – 8, 2010

**DAUBERT/KELLY ISSUES**

**Presented by Honorable Cynthia Stevens Kent, Ret.**

The mock trial presentation offered at the Texas Forensic Science Seminar 2010 will hopefully provide insight into some of the issues and techniques in presenting, meeting and ruling upon scientific evidence challenges under the Texas Rules of Evidence. Many civil and criminal cases involve the presentation of expert testimony. It is important that the litigator is aware of how to demonstrate to the judge the admissibility or inadmissibility of scientific expert testimony. Whether the proffered evidence is hard science or soft science, the court may be called upon to perform the gatekeeper role on the issue of admissibility.

For years the trial courts of our nation have applied the "general acceptance" test as pronounced in *Frye vs. United States*, 54 App.D.C. 46, 293 F.1013 (1923) in deciding the admissibility of scientific and expert testimony. *Frye* held that expert opinion based on a scientific technique is admissible when the technique is "generally accepted" as reliable in the relevant scientific community. However, the United States Supreme Court, in the 1993 decision *Daubert vs. Merrell Dow Pharmaceutical, Inc.*, 113 S.Ct. 2790 (1993), determined that when a court is faced with the proffer of expert testimony under the provisions of F.R.E. 702, "the trial judge must decide at the outset, pursuant to rule 104(a) whether the "testimony's underlying reasoning or methodology is scientifically valid and can properly be applied to the facts at issue." Therefore, judges will be required to evaluate, among other things, the scientific reasoning and

methodology made the basis of the opinions of an expert witness to determine the admissibility of such expert testimony. Since Texas has enacted an evidentiary rule dealing with expert testimony (Tex.R.Evi. 702) which mirrors the Federal Rules of Evidence 702 they have an identical rule obligation on the trial court to make the preliminary determination of admissibility of evidence (Tex.R.Evi. 104).

### FRYE TEST

The 1923 United States Supreme Court decision, now known as the *Frye* test, decided that courts would "go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery." However, the Supreme Court required that there be sufficiently established general acceptance of that scientific method or theory in the particular field of study before expert testimony, based on that method or theory, was admissible.

*Frye* shifted the evaluation of the expert testimony reliability from the judge and jury to the general acceptance of experts within a certain field of study.

### FEDERAL RULES OF EVIDENCE 702

In 1975 the Federal Rules of Evidence were promulgated and those rules provided that all relevant evidence (evidence that tended to make the existence of any consequential fact to the issues in the case more probable or less probable) was admissible. The Courts then specified in Rule 702 that expert testimony was admissible if "scientific, technical or other specialized knowledge would assist the trier of fact to understand the evidence or determine a fact in issue."

Further, under the provisions of Rule 104, the Court was required to make the preliminary determination on the admissibility of evidence such as that offered under Rule 702.

### DAUBERT TEST

In 1993 the *Daubert* decision pronounced that the *Frye* test did not survive the Federal Rules of Evidence promulgation. Instead the Rules of Evidence were the test for the admissibility of expert testimony.

The Supreme Court emphasized that the evidentiary rules provided for a flexible inquiry into the scientific validity of principles made the basis of an expert's opinion, but that the Court must make the preliminary determination of admissibility of such expert testimony. The Court held that the courts must make a preliminary assessment of whether the reasoning or methodology underlying the expert testimony is "scientifically valid and whether that reasoning or methodology properly can be applied to the facts in issue."

### TEXAS LAW ON ADMISSIBILITY OF SCIENTIFIC EVIDENCE

#### A. TEXAS RULES OF EVIDENCE 702

The Texas Rules of Evidence track the language of the Federal Rules of Evidence. Therefore the courts of Texas, under the interpretation of *Daubert*, should be engaged in the same preliminary evidentiary evaluation as the federal courts.

#### B. PRE-*DAUBERT* DECISIONS

Before the *Daubert* decision the Texas courts gave lip service to the *Frye* "general acceptance" test, but generally paid little attention to this test. In the case of *Jones vs. State*,

716 S.W.2d 142 (Tex.App. - Austin 1986, pet. ref'd), the Court used a *Frye* test analysis to admit the results of a gas chromatography, mass spectrometry test. The Court recommended; however, that the trial courts in Texas should apply the following eleven factor test set out in McCormick, "Scientific Evidence: Defining a New Approach to Admissibility" 67 Iowa L. Rev. 879 (1982).

This test includes:

1. The potential error rate in using the techniques;
2. The existence and maintenance of standards governing its use;
3. Presence of safeguards in the characteristics of the technique;
4. Analogy to other scientific techniques whose results are admissible;
5. The extent to which the technique has been accepted by scientists in the field involved;
6. The nature and breadth of the inference adduced;
7. The clarity and simplicity with which the technique can be described and its results explained;
8. The extent to which the basic data are verifiable by the court and jury;
9. The availability of other experts to test and evaluate the technique;
10. The probative significance of the evidence in the circumstances of the case; and
11. The care with which the technique was employed in the case.

Even with case law attempting to set out a method of critical evaluation of scientific or expert testimony, the Texas courts found themselves merely asking two primary issues:

1. Whether the witness possessed a special knowledge, skill, experience, training or education; and

2. Whether the testimony would assist the trier of fact in deciding a fact issue in the case.

Under this broad evaluation of expert and scientific evidence, the Texas courts became a battleground for the experts and the bulk of the evidence was merely submitted to the jury for them to evaluate the credibility of the witnesses and the weight to be given to their testimony.

Kelly v. State, 824 S.W.2d 568 (1992) evaluated the admissibility of DNA evidence and set forth the Texas rule that T.R.E. 702 had taken the place of any *Frye* evaluation on admissibility. *Kelly* set out the test of whether or not the expert's testimony would be helpful to the jury based on both a reliability and relevancy test. The Texas Court of Criminal Appeals then set out a non-exclusive list of seven factors to be considered by judges in determining reliability:

1. The extent to which the underlying scientific theory and technique are accepted as valid by the relevant scientific community, if such a community can be ascertained;
2. The qualifications of the expert testifying
3. The existence of peer reviewed literature regarding the underlying scientific theory and technique;
4. The potential rate of error of the technique;
5. The availability of other experts to test and evaluate the technique;
6. The ability to clearly explain the scientific theory and technique to the court; and

7. The experience and qualifications of the person who applied the technique in the case on trial.

C. POST-*DAUBERT* DECISIONS

In *Merrell Dow Pharmaceutical, Inc. vs. Havner*, 953 S.W.2d 706 (Tex. 1997), the court found that the foundational data underlying opinion testimony must be reliable for the opinions based upon such data to be reliable and admissible. The Court further stated that the methodology which helps form the expert's opinion must be reliable.

In *E.I. du Pont de Nemours & Co. v. Robinson*, 923 S.W.2d 549 (Tex. 1995) the Court held that the trial judge, in determining the admissibility of scientific knowledge, may consider the following factors:

1. The extent to which the theory has been or can be tested;
2. The extent to which the technique relies upon the subjective interpretation of the expert;
3. Whether the theory has been subjected to peer review and/or publication;
4. The technique's potential rate of error;
5. Whether the underlying theory or technique has been generally accepted as valid by the relevant scientific community; and
6. The non-judicial uses which have been made of the theory or technique.

In *Hernandez v. State*, 116 S.W.3d 26 (Tex.Crim.App. 2003) the court held that once a scientific principle is generally accepted in the scientific or professional community and

has been accepted in a number of trials with adversarial hearings, then subsequent courts may take judicial notice of the scientific validity or invalidity of that theory or methodology.

#### APPLICATION OF DAUBERT AND TEXAS RULES OF EVIDENCE 702

The most significant issue in whether Daubert applies to Texas Court's is that the Texas Rules of Evidence 702 is identical to the Federal Rules of Evidence 702. Additionally, both the Texas and Federal Rules 104 require that the court decide preliminary questions of admissibility. The combined effect of Rule 104 and 702 clearly point the Texas Courts to requiring the trial judge evaluate preliminary issues of admissibility of scientific and expert testimony, issues of reliability, and evaluation of scientific methodology prior to admission of expert opinions.

In Daubert the Supreme Court set out a nonexclusive list of areas of evaluation that the Court should consider when faced with expert testimony. The Court stressed that a need for flexible consideration by the Courts was required, however some preliminary evaluation was necessary of the following:

1. Falsifiability of evidence: The Courts should question whether a theory or technique is testable and whether it has, in fact, been tested;
2. Peer Review of evidence: Although not dispositive of admissibility, the Court should question whether the theory or technique has been subjected to peer review and the nature of that review;
3. Error rate and standards of evidence: The Court should question if proper scientific methodology was used; and

4. General acceptance of evidence: The Court should consider, though not dispositive, the widespread acceptance of the evidence as an important factor.

In the evaluation of admissibility under Rule 702 the Court should consider:

1. Is the testimony "scientifically" based that is grounded in the methods and procedure of science?
2. Is the testimony knowledgeable, that is, more than subjective belief or unsupported speculation?

and

3. Is the evidence relevant, that is, does it assist the trier of fact in determining a fact in issue? Essentially, is the testimony "helpful," which requires a valid scientific connection to the pertinent inquiry?

Rule 702 provides that the court may allow an expert to testify by opinion or other testimony where that specialized knowledge will assist the trier of fact to understand evidence or determine relevant issues of a case. Three basic requirements for a witness to testify as an expert (Fultz). See also Bratcher v. State, 771 S.W. 2d 175 (Tex.App.--San Antonio, 1989) No writ.

The court has the discretion as to whether expert testimony should be admitted. See US v. Gonzales, 749 F.2d 1329 (9th Cir. 1984) and Pierce v State, 777 S.W.2d 399 (Tex. Cr. App. 1989).

And the test under the rule for the court to apply is whether or not the evidence may be helpful to the jury's determination of a relevant fact issue. See Holloway v. State, 613 S.W.2d 497 (Tex. Cr. App. 1981) and Sattiewhite v State, 786 S.W.2d 271 (Tex. Cr. App. 1989). The



court should also require a showing that the witness is qualified by education, skill, experience or training to testify as to a scientific, technical or area requiring specialized training and skill.

The general rule of admissibility of an expert witness' testimony in a criminal case is (1) The witness must be competent and qualified to testify, (2) the testimony must assist the jurors, as triers of fact, in evaluating and understanding matters not within their common experience and (3) the testimony's probative value must outweigh its prejudicial effect. See Kirkpatrick v. State, 747 S.W.2d 833 (Tex.App.--Dallas, 1987) writ refused.

Judges should carefully review the Daubert, Kelly, Robinson, and Havner decisions and how to properly evaluate the admissibility of expert testimony for reliability and relevance.

#### 702 EVALUATION REQUIRED ON SOFT SCIENCE

Texas courts and the United States Supreme Court have each applied a flexible 702 evaluation to soft science cases. Nenno v. State, 970 S.W.2d 549 (Tex.Crim.App. 1998) the court evaluated the validity of a theory or technique by considering:

1. Whether the field or expertise is a legitimate one or one developed just for litigation.
2. Whether the subject matter of the expert's testimony is within the scope of that field;  
and
3. Whether the expert's testimony properly relies upon or uses the techniques and principles in the field.

In Cammill v. Jack Williams Chevrolet, Inc., 972 S.W.2d 713 (Tex. 1998), the Texas Supreme Court found that nonscientific expert testimony must be evaluated under 702 but the lists of factors to be considered under a strict reading of *Daubert* cannot always be applied in the

soft science areas. The court must still perform a gate keeping role but fashion a relevance and reliability evaluation to the type of expert field which is being proffered.

In Kumho Tire Co., LTD. v. Carmichael, 526 U.S. 137 (1999), the United States Supreme Court found that in some cases involving non-hard science expert testimony, admissibility must be judged not by a strict evaluation of the *Daubert* factors, but the court must still evaluate the relevancy and reliability of the evidence before allowing admissibility.

As the gatekeeper the judge will need to determine if the case involves hard or soft science issues and then apply the appropriate evaluation of the proffered testimony.

#### BASES OF OPINION TESTIMONY BY EXPERTS

T.R.E. 703 rule is identical to the federal rule of evidence and each require that an expert may testify as to an opinion only upon a showing that his testimony is predicated upon a showing of his personal observations; facts or data presented to the expert either admissible or inadmissible if they are reasonably relied upon by experts in the field. Thus hearsay evidence may be relied upon by an expert making an opinion however the court might restrict the introduction of the specific hearsay or inadmissible facts upon which the expert witness based his opinion. See US v. Jones, 687 F.2d 1265 (8th Cir. 1982); US v. Hollman, 541 F.2d 196 (8th Cir. 1976).

(a) An expert witness need not disclose the underlying data or facts used to form his opinions unless required by the court. The expert may however disclose those underlying facts on direct and must disclose, if requested to do so, on cross-examination. This eliminates the need for "hypothetical questions".

(b) If requested, the court shall allow counsel to question and test the underlying facts or data upon which an expert witness has based his opinion outside the presence of the jury and prior to the direct examination of the expert witness.

(c) If the court determines that expert witness does not have sufficient basis for his opinion, that opinion may be excluded until sufficient basis is established.

(d) If the underlying facts are in and of themselves inadmissible they shall be excluded by the court if the danger of prejudice outweighs their value. If the court admits such facts before the jury, a limiting instruction shall be given upon request. This is a balancing test to be applied in the discretion of the trial court.

#### OPINION ON ULTIMATE ISSUE

A witness may present an admissible opinion testimony even when it embraces an ultimate issue to be decided by the jury under Rule 704. See Gale v. State, 747 S.W.2d 564 (Tex.App.--Ft. Worth, 1988) no writ. for expert opinion testimony on an ultimate issue. However the opinion must be otherwise admissible under the rules of evidence. See Kirkpatrick v. State, 747 S.W.2d 833 (Tex.App.--Dallas, 1987) Writ refused and Thomas v. State, 774 S.W.2d 26 (Tex.App.--Beaumont, 1989) no writ.

#### DISCLOSURE OF FACTS OR DATA UNDERLYING EXPERT OPINION

T.R.E.705 provides that a witness may disclose the underlying facts or data on direct or cross.

A party may take the witness on voir dire prior to the expressing of the opinion to determine what are the underlying facts or data relied upon by the expert. This is to be conducted outside the presence of the jury.

The Court, however, shall determine if the basis for the opinion is sufficient and therefore whether the opinion is admissible.

If the Court finds that the underlying facts or data would be inadmissible in evidence, then the court shall exclude those after applying the balancing test.

#### OPINION TESTIMONY BY LAY WITNESSES

Under Rule 701, if a witness is a non-expert then he may only present evidence of opinions or inference which are rationally based on the perception of the witness and helpful to a clear understanding of the witness' testimony or the determination of a fact in the case.

See US v. Sweeney, 688 F.2d 1131 (7th Cir. 1982).

In Thomas v. State, 774 S.W. 2d 26 (Tex.App. Beaumont, 1989) no writ, an officer's testimony as to his opinion of what the defendant intended to do to the officer during the on scene confrontation was held admissible. The court held that Rule 701 allows a lay witness to give opinions which are rationally based on the perception of the witness, what she thought the defendant was going to do to her, if such opinions are helpful to a clear understanding of her testimony.

#### SUMMARY

It is important whether presenting, objection to, or ruling upon the admissibility of scientific evidence that the court must do more than determine if the expert's opinions are based

upon peer reviewed material and generally accepted in that scientific community. Although the *Frye* test may be one factor for the court to consider, the court must also be open to new science being relevant and reliable. The court must also be aware that generally accepted opinions may still be subject to a 702 challenge and the court must look at all factors which weight in favor or against admissibility.

This case by case approach to the admissibility of expert testimony provides fertile ground for challenging expert's opinions in court.