

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GNOSIS S.P.A., GNOSIS BIORESEARCH S.A., AND GNOSIS U.S.A., INC.  
Petitioners

v.

MERCK & CIE  
Patent Owner

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Case IPR2013-00117  
U.S. Patent 6,011,040

**REPLACEMENT DECLARATION OF DR. NOEL C. GARDNER M.D.**

<p><b>MERCK EXHIBIT</b> <b>CORRECTED</b> <b>REPLACEMENT 2003</b> <i>Gnosis v Merck &amp; CIE</i> IPR2013-00117</p>
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I, Dr. Noel C. Gardner, M.D., pursuant to 37 C.F.R. § 42.53, declare as follows:

## **I. INTRODUCTION AND QUALIFICATIONS**

1. I have been retained on behalf of Merck & Cie (“Merck”) in connection with the petitions to institute Inter Partes Reviews brought by Gnosis S.P.A., Gnosis Bioresearch S.A., and Gnosis U.S.A., Inc. (collectively, “Gnosis”).

2. I am a practicing physician in the field of clinical and forensic psychiatry in Salt Lake City, Utah.

3. I serve as an adjunct faculty member at the University of Utah in the Department of Family and Preventive Medicine and the Department of Psychiatry.

4. I am a board-certified psychiatrist licensed to practice in the state of Utah.

5. I received a Bachelors Degree from Pacific Union College in 1975. In 1978 I received a Masters of Divinity from Andrews University. I received my medical degree from Loma Linda University in Loma Linda, California in 1984.

6. I completed a residency in Psychiatry at the UCLA Neuropsychiatric Institute in 1988.

7. In 1988, I became an Assistant Professor at the University of Utah in the Department of Psychiatry. I became an Associate Professor in 1994, and in 2003 an Adjunct Professor.

8. In addition to my academic positions, I am a member of the American Medical Association, American Psychiatric Association, Utah Psychiatric Association, Academy of Psychosomatic Medicine, and the American Academy of Psychiatry and the Law.

9. I have held positions on several National Advisory Boards. Presently, I am on two National Advisory Boards: Takeda Pharmaceuticals/ S. Lundbeck Pharmaceuticals (two antidepressants in development) and Eli Lilly Global Neuroscience Advisory Board.

10. My practice and teaching focuses on clinical and forensic psychiatry. In addition, my research focuses on psychopharmacology.

11. I have received numerous honors and awards in recognition of my professional experience and expertise.

12. I have provided numerous lectures and consultations to a variety of professional and public audiences on topics involving psychiatric treatment and psychopharmacology.

13. I have published and presented extensively in the area of psychiatry and psychopharmacology.

14. I am being compensated for my work on this case at \$395 per hour plus expenses. My compensation is not contingent upon the outcome of this case.

15. In the past, I have acted as a consultant for Merck's licensee, PamLab LLC ("PamLab") and have been compensated for my time.

16. I have no financial interest in the outcome of these proceedings and my compensation is in no way contingent upon my opinions set forth below.

17. Further details regarding my experience and publications can be found in my CV, attached hereto as Appendix A.

## **II. MATERIALS CONSIDERED**

18. My analyses and opinions in this case are based on my personal knowledge, education, research, and consulting relating to neurological disorders, and the materials cited herein.

19. All testimony and documents cited herein are representative examples and not an exhaustive recitation of supporting testimony and documents on which I rely.

## **III. STATEMENT OF OPINIONS TO BE EXPRESSED AND THE REASONS THEREFOR**

20. I understand that Gnosis has alleged that certain claims of U.S. Patent No. 6,011,040 ("'040") (Ex. 1004) are invalid for being obvious in view of the prior art. It is my understanding that objective evidence of nonobviousness is an important component of determining whether a patent is obvious. I understand that so called secondary considerations are relevant to obviousness analysis.

21. It is my understanding that objective evidence of nonobviousness includes evidence that the claimed invention (1) satisfied a long-felt but unmet need; (2) was the subject of professional approval and industry praise, or skepticism (3) showed unexpected results, (4) and experienced commercial success.

22. My opinions herein are set forth from the vantage point of a person of ordinary skill in the art (“POSA”). A POSA would possess at least a college degree in the relevant area of science or medical field, or at least five years of experience in the relevant area of science or medical field. In my opinion, a relevant area of science or medical field would include researchers and/or medical practitioners that conduct research on, or possess sufficient knowledge about, metabolic imbalances associated with neurological disorders. It may also include, but is not limited to, a person having at least an undergraduate degree in a relevant area of science or medical field and knowledge of neurological conditions sufficient to appreciate the relative merits of various compositions in treating or preventing diseases associated with metabolic imbalances, such as major depressive disorder. It is from this perspective I offer my opinions. Further, my opinions are from the perspective of that person at the time of the filing dates of the Challenged Patent. I understand the earliest filing date of the ’040 Patent is June 13, 1997.

## **A. Major Depressive Disorder, Homocysteine, and Available Treatments**

23. Major depressive disorder (“MDD”) is the most common of the major mood disorders. It affects approximately 15 million adults in the U.S. in any given year, (or about 6.7% of the population over age 18).<sup>1</sup> It is the leading cause of disability in the U.S. for individuals 15-44 years of age (the crucial ages when individuals are getting higher levels of education, establishing careers and families and providing a substantial portion of their life-long productivity).

### **1. Homocysteine and Major Depressive Disorder**

24. MDD is a very complex disorder, and the biological pathways that cause and/or contribute to MDD are still not completely understood. However, there is a well-established correlation between high levels of the amino acid homocysteine and MDD.<sup>2</sup>

25. Homocysteine is an amino acid that is a byproduct of certain intracellular biochemical reactions in brain cells, such as the synthesis of neurotransmitters. Under normal physiological conditions homocysteine is rapidly converted into methionine, which is an essential component in DNA synthesis, and the synthesis of a variety of protein and lipid molecules and neurotransmitters.

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<sup>1</sup> R.C. Kessler RC, *Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the national comorbidity survey replication*, 62 Arch Gen Psychiatry (2005) (Ex. 2157) at 619.

<sup>2</sup> M. Folstein et al., *The homocysteine hypothesis of depression*, 164 Am. J. Psychiatry 861-867 (2007) (Ex. 2159) at 861.

Disruption in this process results in elevated levels of homocysteine, which are associated with possible abnormal methylation of DNA and resulting epigenetic abnormalities, and can interfere with the synthesis of proteins (often enzymes or receptors that regulate cell functions), lipids (including phospholids that are important components of cell membranes) and neurotransmitters.

26. Folate, and specifically the natural isomer 6(S)-5-methyltetrahydrofolate (“L-methylfolate”), is particularly important in this process, as it is the only methyl donor present in the brain that removes homocysteine (in contrast to peripheral tissues where an additional enzyme (BHMT) can convert homocysteine to methionine). Further, L-methylfolate is the only folate that can cross the blood-brain barrier.

27. Generally, L-methylfolate is synthesized from ingested folate sources such as folic acid through a multi-step process that utilizes several enzymes, including methylene tetrahydrofolate reductase (“MTHFR”). MTHFR is responsible for the final step in the conversion of dietary forms of folate (such as folic acid) to L-methylfolate. There are several genetic polymorphisms that result in the disruption of the formation of MTHFR, resulting in deficiencies of that enzyme. Deficiencies in MTHFR, for example due to the inherited genetic trait,



are associated with a significant elevation in homocysteine levels. Further, deficiencies in MTHFR are also associated with MDD.<sup>3</sup>

## 2. Treatment of Major Depressive Disorder

28. Treatment of MDD is a complex process that has evolved over the past several decades. The initial antidepressants were the tricyclics (TCAs) and monoamine-oxidase inhibitors (MAOIs) in the 1950's through late 1980's. While efficacious in some patients, these medications were lethal in overdose and had such intolerable side-effects that they were rarely used outside of limited psychiatric settings and with very ill patients. The later discovery and commercialization of selective serotonin reuptake inhibitors ("SSRIs"), which were generally safe in overdose, well-tolerated and easy to use, greatly expanded the diagnosis and treatment of MDD. However, POSA recognized the limitations of the SSRIs related to potential drug-drug interactions, troubling side effects (sexual dysfunction, apathy syndromes, weight gain) and limitations in efficacy. This led to interest in "dual-acting" SNRIs (serotonin-norepinephrine reuptake inhibitors) such as duloxetine, studied in the late 1990's and commercialized in 2004. SNRIs also had similar side effects to SSRI's.

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<sup>3</sup> See, for example, C.B. Kelly et al., *The MTHFR C677T polymorphism is associated with depressive episodes in patients from Northern Ireland*, 18 Journal of Psychopharmacology 567 (2004) (Ex. 2152) at 570.

29. Another recognized limitation of antidepressants were difficulties in maintaining patients' adherence to therapeutic regimes long enough to experience beneficial results. MDD medications often take significant amounts of time before symptoms resolve. Further, it often takes significant experimentation to find the appropriate dosage that is effective with each individual patient. However, also during this experimentation period patients are subjected to the significant side effects of MDD medications described above. Due to the combination of delay in relief from symptoms, and the common side effects associated with antidepressant medications, patients often discontinue pharmaceutical therapies before symptom remission occurs. The poor efficacy of traditional antidepressant therapy resulted in a persistent need, recognized by POSA, to discover safe and effective augmenting agents for adjunctive use with antidepressants.

30. The need for augmenting MDD treatment led to the active pursuit throughout the 1980's and early 1990's of safe and effective adjunctive agents.<sup>4</sup> Many different agents were evaluated, including thyroid hormone (triiodothyronine), lithium, pindolol, buspirone, and the combination of two antidepressants from different receptor-pharmacology classes. The persistent need

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<sup>4</sup> M. Fava et al., *Current status of augmentation and combination treatment for major depressive disorder: A literature review and a proposal for a novel approach to improve practice*, 75 *Psychotherapy and Psychosomatics* 139 (2006) (Ex. 2158) at 141.

for effective augmenting agents also led to studies in the late 1990s and early 2000's involving augmenting antidepressants with "atypical antipsychotics", agents that previously had been reserved for schizophrenia and bipolar disorder, and were known to have substantial and potentially serious side-effects.

31. Each of these approaches had significant potential side effects, and at times serious associated adverse events (i.e. risk of a serotonin syndrome, drug-drug interactions, etc.). For example atypical antipsychotics are well known by POSA for their association with significant side effects, including: profound weight gain, increased risks for hyperglycemia and lipid abnormalities, increased mortality in elderly dementia-related psychosis, motor abnormalities including tardive dyskinesia, drug-induced parkinsonism, akathisia, and rare but potentially life-threatening risks associated with neuroleptic malignant syndrome and potentially lethal cardiac arrhythmias.

32. Augmenting agents known prior to 1997 were also recognized by POSA as inadequate and ineffective because they further delayed the remission of MDD symptoms. As a result, patients may be deterred from consistently taking medication sufficient to achieve and maintain remission of MDD symptoms. Further, MDD patients often must undergo an experimentation period where MDD medications (either traditional antidepressants or the augmenting agents) are frequently switched in order to achieve a therapy regime that may result in

remission of MDD symptoms. The experimentation can extend the period before a patient experiences relief from MDD symptoms, and increases the cost and complexity of treatment. In addition, during this experimentation period, patients are subjected to the significant side effects and risk of drug interactions from MDD medications and/or augmenting agents described above.

33. Due to the combination of delay in relief from symptoms, and the common side effects associated with antidepressant medications and/or adjunctive agents, patients often discontinued pharmaceutical therapies, thus increasing the duration of distress and disability, which furthers a patient's sense of failure and despair and exposes them to the ever present risk of suicide that is inherent to the illness of depression.

34. In spite of the extensive attempts to find effective MDD treatment during the 1980's and early 2000's, a large NIMH funded prospective, randomized trial of outpatients with MDD (the STAR-D Project) found that they were inadequate. The study found that only about one-third of patients had an adequate response to an initial antidepressant, and that a variety of additional treatment adjustments, such as adjunctive use of augmentation agents, resulted in only modest additional benefit.<sup>5</sup>

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<sup>5</sup> D. Warden *et al.*, *The STAR-D project results: a comprehensive review of findings*, 9 Current Psychiatry Reports (2007) (Ex. 2150) at 457.

35. Therefore, based on my knowledge and experienced, as reflected in the published literature, as of 1997 many POSA had tried, but failed, to meet the recognized need for a safe and effective adjunctive treatment for MDD.

**B. Pamlab's Deplin®**

36. Pamlab manufactures and sells Deplin®, a medical food dispensed for the clinical dietary management of the metabolic imbalances associated with depression and schizophrenia. Medical foods are a specific class of treatments and do not require FDA approval. Deplin® is used for adjunctive use with antidepressants.<sup>6</sup> The label states that it is indicated regardless of MTHFR C677Y polymorphism genotype, indicating it is effective even in individuals who have impaired folate metabolism due to deficiencies in MTHFR. For an exemplary Deplin® package insert, see Ex. 2162.

37. Pamlab's Deplin® is unique because it is an effective adjunctive treatment of MDD with no adverse side effects. Further, Deplin®'s safety and efficacy has been clinically proven. A POSA would recognize that Deplin® is effective due to its active ingredient: substantially chirally pure reduced folate L-methylfolate.<sup>7</sup> As described above, L-methylfolate is a biological active form of

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<sup>6</sup> Deplin® is also indicated for adjunctive use in schizophrenia for individuals who have or are at risk for hyperhomocystenemia.

<sup>7</sup> I understand the L-methylfolate in Deplin® is Metafolin®, a synthetic form of 5-methyl-(6S)-tetrahydrofolic acid. Metafolin® consists of more than 99% of the

reduced folate that could be given directly - eliminating some of the problems created by deficiencies in MTHFR due to genetic polymorphisms.

1. **Deplin® is an Effective Adjunctive Therapy for Major Depressive Disorder**

38. The safety and efficacy of Deplin® for adjunctive MDD therapy has been demonstrated in multiple studies.

39. For example, a recent study found that patients given L-methylfolate, the active ingredient in Deplin®, as an adjunctive treatment of MDD were over 2.5 times more likely to experience major improvements, and experience improvements nearly 2 months sooner than the control group. Patients given L-methylfolate were also less likely to drop out of the study. Further, the addition of L-methylfolate was not associated with any additional side effects.<sup>8</sup> The combination of tolerance and improved response to traditional MDD treatment resulted in fewer patients discontinuing the treatment regime when L-methylfolate was added.

40. Another recent study found administering L-methylfolate as an adjunctive agent was more effective in improving depressive symptoms, led to

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active “L” isomer and less than 1% of the inactive “D” isomer and is considered substantially chirally.

<sup>8</sup> G.I. Papakostas et al., *L-Methylfolate as adjunctive therapy for SSRI-resistant major depression: results of two randomized, double-blind, parallel-sequential trials*, 169 Am J Psychiatry 1267 (2012) (Ex. 2154) at 1270-1272.

major symptomatic improvements more rapidly, and was better tolerated when compared to administration of antidepressant medication without adjunctive L-methylfolate.<sup>9</sup>

41. The introduction of Deplin® provided another, more tolerable treatment option in addition to FDA-approved drugs. Deplin® is unique in that there are essentially no side-effects or adverse drug interactions associated with its use, which allows patients to easily compliment a therapeutic regime that is already in place. I am aware of no other adjunctive MDD treatment options associated with such universal tolerability.

42. In my opinion, the specific formulation of Deplin® is key to its success and effectiveness. Deplin® consists of L-methylfolate, the natural form of folate that can cross the blood-brain barrier. Further, L-methylfolate is not affected by deficiencies in MTHFR such as those caused by genetic polymorphisms that limits the effectiveness of synthetic or dietary folate in some patients. When provided to patients who suffer from MDD in conjunction with suboptimal L-methylfolate levels, and patients with the MTHFR genetic polymorphisms, L-methylfolate contributes to the physiological pathway that ensures homocysteine levels remain low.

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<sup>9</sup> L.D. Ginsberg et al, *L-methylfolate Plus SSRI or SNRI from Treatment Initiation Compared to SSRI or SNRI Monotherapy in Major Depressive Episode*, 8(1) Innov. Clin. Neurosci 19 (2011) (Ex. 2155) at 25-27.

43. As a result of Deplin®'s unique qualities, its use has greatly improved the quality of life of patients that suffer from MDD. I have personal experience with a significant number of patients who, after long periods of failing multiple trials of antidepressants often involving complicated polypharmacy, have had robust response when Deplin® was added to their antidepressant treatment. Several of these patients are professionals (physicians, attorneys, business executives), who were profoundly impaired by MDD. Some of them who had been on periods of short-term or even long-term disability from their refractory illness that had complete resolution of symptoms after the addition of Deplin®. In addition many patients have told me that the addition of Deplin® has resulted in them feeling the best they have felt in many years even when they had previously experienced what was accepted as a remission. It appears that Deplin® provides distinct benefits in mental energy, motivation, and cognition, that were either left untreated by previous SSRIs and other traditional antidepressants, or were, in fact, impairments in mental energy, motivation and cognition caused as side effects by antidepressants. I am now adding Deplin® to patients who have a syndromal remission from their MDD, but are left with fatigue and impaired cognition. The improvement I have observed is an unanticipated and highly valuable discovery. This particular improvement is being reported by my colleagues and deserves much closer study.



44. Based upon clinical evidence and my own personal experience, adjunctive use of Deplin® offers medical practitioners a safe and effective augmentation therapy for treating MDD, a disease associated with high levels of homocysteine and MTHFR deficiencies. As a result, Deplin® is widely utilized by healthcare practitioners to treat MDD.

**C. Deplin® Is Covered by the '040 Patent**

45. At least Claims 8 and 11 of '040 Patent covers Deplin®. These claims are directed to a method of preventing or treating a disease associated with increased levels of homocysteine comprising administering 5-methyl-(6S)-tetrahydrofolic acid, wherein the increased levels of homocysteine are associated with MTHFR deficiencies. I have been informed that Patent Owner's expert, Dr. Jess Gregory, has interpreted "5-methyl-(6S)-tetrahydrofolic acid" recited in these claims to mean the single isomer free or essentially free of the unnatural isomer.

46. Deplin® is a composition comprising substantially chirally pure 5-methyl-(6S)-tetrahydrofolic acid. Further, Deplin® is administered for adjunctive treatment of MDD. As described above, MDD is a disease associated with increased levels of homocysteine and MTHFR deficiencies.

**D. Deplin® Fulfilled a Long-Felt but Unmet Need for an Effective Adjunctive Treatment for Major Depressive Disorder**

47. A POSA, as defined herein, would consider Deplin® as having fulfilled a long-felt but unmet need for a safe and effective adjunctive therapy for

MDD. As described above, recognition by POSA of the inadequacy of MDD treatments in the early 1980's led to consistent research to find effective adjunctive agents.

48. Further, in spite of the extensive efforts to find better adjunctive MDD treatments, prior to 1997 and before the introduction of Deplin®, adjunctive MDD treatment options were inadequate due to partial or very limited therapeutic response and poor tolerability. Given the available adjunctive MDD options prior to 1997, it is no surprise that a large review of available treatments conducted before the introduction of Deplin® concluded “[c]oncerns about cost, adverse effects, drug-drug interactions, and long-term effects of such combinations suggest the need to prospectively evaluate the usefulness” of addition adjunctive therapies to MDD treatment regimes.”<sup>10</sup>

49. A POSA would recognize that Deplin® satisfied the long-felt but unmet need for a safe and effective adjunctive treatment for MDD. As discussed above, Deplin® has been shown to be an effective adjunctive MDD treatment by working synergistically with traditional MDD medications, increasing the effectiveness of those medications. In addition, unlike other MDD medications or

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<sup>10</sup> D. Warden et al., *The STAR-D project results: a comprehensive review of findings*, 9 Current Psychiatry Reports 449 (2007) (Ex. 2150) at 457.

augmenting agents, Deplin® is not associated with significant adverse reactions.<sup>11</sup> For example, in a recent study reporting the effect size of augmentation strategies for depression based on the registration trials of the atypical antipsychotics, found that the number needed to treat (NNT- the lower the number the more effective the agent) for the atypical antipsychotics currently FDA approved for adjunctive use in MDD (aripiprazole, quetiapine and olanzapine) and that the NNT was generally only moderate in effectiveness (average 9 and an high as 19), while the number needed to harm (NNH- the lower the number the more patients discontinued due to adverse events) was low, suggesting a high burden of side effect. In contrast, the NNT for Deplin® is 5-6, with a NNH significantly superior to placebo, meaning that placebo had more side effects than Deplin®.<sup>12</sup> This suggests that Deplin® is both more effective and much better tolerated than the FDA approved atypical antipsychotic agents for adjunctive use with antidepressants. This is the kind of practical, real-world data that is very impressive to practicing clinicians because it

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<sup>11</sup> G.I. Papakostas et al, *L-Methylfolate as adjunctive therapy for SSRI-resistant major depression: results of two randomized, double-blind, parallel-sequential trials*, 169 Am J Psychiatry 1267 (2012) (Ex. 2154) at 1270-1272; L.D. Ginsberg et al, *L-methylfolate Plus SSRI or SNRI from Treatment Initiation Compared to SSRI or SNRI Monotherapy in Major Depressive Episode*, 8(1) Innov. Clin. Neurosci 19 (2011) (Ex. 2155) at 25-27.

<sup>12</sup> L. Citrome, *Adjunctive Aripiprazole, Olanzapine, or Quetiapine for Major Depressive Disorder: an analysis of number needed to treat, number needed to harm, and likelihood to be helped or harmed*, Postgraduate Medicine, 122 (4):39-48 (2010) (Ex. 2163).

reflects the kind of efficacy and tolerability needed to be successful with patients in clinical practice.

50. The tolerability of Deplin® not only makes traditional MDD medications better, but increases the chances that patients will adhere to therapy regimens long enough to experience a secession of MDD symptoms.

#### **E. Praise for Deplin®**

51. As discussed above, the benefits of Deplin® have been recognized in the medical community.<sup>13</sup>

52. I have been approached by numerous physicians who ask me about Deplin® or who have praised its positive response in terms of efficacy and tolerability. Praise of Deplin® has also been directly conveyed to me by physicians who I know personally and as patients.

53. This praise for Deplin® is in sharp contrast to the general skepticism I recall when Deplin® was first offered, which is not surprising considering how many adjunctive MDD treatments have been tried but failed. The early opinion regarding Deplin® was general incredulity that it would be effective as an adjunctive MDD treatment. In fact, based on my experience, medical practitioners did not consider Deplin® a realistic adjunctive MDD therapy option until its

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<sup>13</sup> See Ex. 2154 and 2155, cited at fn 8, 9; see also S.M. Stahl, *Novel Therapeutics for Depression: L-methylfolate as a Trimonoamine Modulator and Antidepressant-Augmenting Agent*, Trends in Psychopharmacology (2007) (Ex. 2160) at 739-744.

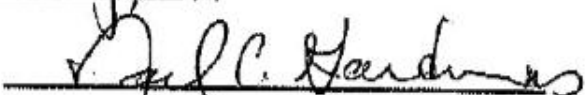
effectiveness and tolerability was demonstrated in robust double-blind studies described above.

**F. Commercial Success of Deplin®**

54. Since Deplin® was introduced, I have written many prescriptions for it, and am aware of numerous physicians who have used it with similar results of robust efficacy and extra-ordinary safety and tolerability. While I was first made aware of Deplin® through sales personnel, the proven effectiveness and safety of Deplin® has resulted in my prescriptions for the product, and has resulted in a widespread surge in interest and use by other psychiatrists and general physicians.

I declare under penalty of perjury that the foregoing is true and correct.

Dated October 11, 2013 in Salt Lake City, Utah

  
Noel C. Gardner, M.D.

# **APPENDIX A**

NOEL C. GARDNER, M.D.

CURRICULUM VITAE

July, 2012

PERSONAL DATA

Date of Birth:	December 26, 1951
Citizenship:	United States of America
Marital Status:	Married
Spouse:	Connie Estep-Gardner
Email:	noelcgardner@yahoo.com
Scheduling for Speaking/Consulting	Connie: (801) 673-8284

CURRENT PROFESSIONAL POSITIONS:

Private Practice in Clinical and Forensic Psychiatry  
1208 East 3300 South , Suite 100  
Salt Lake City, Utah 84106  
Phone 801-580-8778

Associate Medical Director and Director of Clinical Education  
Polozzi Clinic (Free Clinic for Underserved)  
Multiple sites. Use contact info above)

ACADEMIC APPOINTMENTS

1988-1994	Assist Prof. (Clinical)	Department of Psychiatry, University of Utah Department of Family and Preventive Medicine, University of Utah
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1994-2003	Asoc. Prof (Clin)	Department of Psychiatry, University of Utah Department of Family and Preventive Medicine, University of Utah
2003-present	Adjunct Professor	Department of Psychiatry, University of Utah
2003-present	Adjunct Professor	Department of Family and Preventative Medicine, University of Utah

## EDUCATION

1971 –1975	B.A.	Pacific Union College, Angwin, California Magna cum Laude, Honors Graduate Majors: Biblical Languages, Theology
1976 –1978	Master of Divinity	Andrews University, Berrien Springs, Michigan Summa cum Laude
1977 –1978		Course work for the Master of Divinity degree; included graduate theological studies at the Chicago Cluster of Theological Seminaries affiliated with the University of Chicago Jesuit School of Theology Chicago, Illinois Bethany Seminary (Church of the Brethren) Downer's Grove, Illinois Northern Baptist Theological Seminary (American Baptist) Downer's Grove, Illinois Lutheran School of Theology (LCA) Chicago, Illinois
1980 –1984	M.D.	Loma Linda University, Loma Linda, California

## POST-GRADUATE EDUCATION

1984 –1985	Internship	Harbor-UCLA Medical Center, Torrance, California
1985 –1988	Residency	UCLA Neuropsychiatric Institute, Los Angeles, California
1987 – 1988	Chief Resident	UCLA Neuropsychiatric Institute, Geriatric Psychiatry Unit, Los Angeles, California
2002	Graduate Certificate	Advanced Training Program in Health Care Delivery Improvement IHC Institute for Health Care Delivery Research

## CERTIFICATION, LICENSURE, and BOARD CERTIFICATIONS

Certification:		National Board of Medical Examiners, 1985
Licensure:	#GA-056341 #88-178852-1205	California, 1985 Utah, 1988
Boards:	#037219	American Board of Psychiatry and Neurology, 1993



## PROFESSIONAL RESPONSIBILITIES

1982 – 1984	Delegate	Medical Student Section, California Medical Association
1984	Delegate	Medical Student Section, American Medical Association House of Delegates bi-annual meetings
1989	Appointment	Institutional Review Board, University of Utah Salt Lake City, Utah
1992	President-elect	Utah Psychiatric Association
1992	Invited Member	Academy of Psychosomatic Medicine, Taskforce on the Role of Consultation-Liaison Psychiatrists in General Hospital Ethics Committees
1993	President	Utah Psychiatric Association
1994	Past President	Utah Psychiatric Association
1995 – 1997	Founding member	Executive Board of Scientific Advisors, American Board of Forensic Medicine

## PROFESSIONAL AFFILIATIONS

American Medical Association  
 American Psychiatric Association  
 Utah Psychiatric Association  
 Academy of Psychosomatic Medicine  
 American Psychiatric Association Research Network  
 American Academy of Psychiatry and the Law

## ACADEMIC AWARDS and HONORS

1975	Who's Who in American Colleges and Universities
1978	Outstanding Young Men of America
1987	Robert Wood Johnson Clinical Scholars Fellowship
1990	Outstanding Educator of the Year, University of Utah School of Medicine Department of Psychiatry, Residency Training Program
1990	Faculty Recognition Award (student selected), University of Utah School of Medicine
1991	Faculty Recognition Award (student selected), University of Utah School of Medicine
1995	Resident Teaching Award, University of Utah Department of Psychiatry
2007	Excellence in Teaching Award, University of Utah School of Medicine Department of Psychiatry, Residency Training Program
2009	Excellence in Teaching Award, University of Utah School of Medicine Department of Psychiatry, Residency Training Program
2010	Excellence in Supervision Award, University of Utah School of Medicine Department of Psychiatry, Residency Training program

## TEACHING ACTIVITIES

UNDERGRADUATE MEDICAL CURRICULUM:

1988 –1994

## Lectures in Psychiatry

Basic Science Core Curriculum

First and second year medical students

Topics: Human Sexuality, Psychology of Stress, Personality Disorders, Geriatric Psychiatry, Somatoform Disorders,,Malingering

Principles and Practice of Ethical and Humanitarian Medicine.

Seminar for third year clerkship

Provide direct clinical supervision of all third year (required) and fourth year (elective) clerkships in consultation liaison psychiatry at the University of Utah Medical Center.

1996 – present

Lecture in Ethics - fourth year medical curriculum

GRADUATE PSYCHIATRY CURRICULUM:

1988 – 2002

Core Curriculum Lectures: Consultation Liaison Psychiatry.

PGY-3 and 4 (3 hours)

Core Curriculum Lectures: Ethics in Psychiatry.

PGY-1 and 2 (3 hours)

Core Curriculum Lectures: Theories of the Mind and Psychopathology.

PGY-1 and 2 (4.5 hours)

Core Curriculum Lectures: Somatoform Disorders PGY-3 and 4 (2 hours)

Core Curriculum Lectures: Principles and Practices - Essentials of Managed Care (2 hours)

Special Topics: Theory and Practice of Guided Imagery in Psychotherapy. PGY-3 and 4 (2 hours)

Special Topics: Ethical Issues in Psychiatry Practice. PGY-3 and 4 (2 hours)

2002-present

Core Curriculum Lectures: Theories of the Mind and Psychopathology. PGY -1 and 2 (6 hours)

Core Curriculum Lectures. PGY 3 and 4. Forensic Psychiatry : Applications in Criminal Settings. Team taught with C. C. Horton, Chief, Criminal Division, Utah Attorney General's Office.

2010-present

Core Curriculum Lectures PGY 3 and 4. Personalized Psychotherapy  
An advanced psychotherapy course that integrates concepts from Neuropsychanalysis, Jungian psychology and existential psychotherapy.

GRADUATE INTERNAL MEDICINE CURRICULUM:

(The psychiatric lectures of the Core Curriculum for residents in the Internal Medicine residency at

## LDS Hospital / University of Utah program)

1996 – 2002	Cognitive Disorders - Delirium, Dementia, and Pseudodementia of Depression (1 hour)
	Essentials in the diagnosis and pharmacotherapy of Depression (1 hour)
	Somatoform Disorders, Factitious Disorders, and Malingering (1 hour)
	Assessment and Management of Psychiatric Emergencies

OTHER CLINICAL DIDACTIC TEACHING:

1995 – 2001	<i>Comprehensive Review of Psychiatry</i> -- a bi-weekly ongoing review of psychiatry for IHC medical social workers and nurse care managers at LDS Hospital. This course covers History, Classification, Epidemiology, Major Diagnostic Categories, Emergency Psychiatry, Personality Disorders, Schools and Strategies of Psychotherapy, Introduction to Psychopharmacology, Grief / Death and Dying, Legal and Ethical Issues (25 hours per year)
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## TEACHING ACTIVITIES (other than classroom):

UNDERGRADUATE MEDICAL CURRICULUM:

1988 – 2001	Third year psychiatry clerks and fourth year elective sub-interns participate in daily clinical C/L psychiatry teaching rounds at the University of Utah Medical Center under my direct supervision (15 - 20 hours per week)
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GRADUATE MEDICAL CURRICULUM:

1988 – 2001		PGY-2 and 3 residents (and occasional PGY-4 elective) participate with students in daily clinical C/L psychiatry teaching rounds at the University of Utah Medical Center under my direct supervision (15 - 20 hours per week)
1990 – 2002	Family Practice	All Family Practice residents in the University of Utah Family Practice program participate in daily C/L psychiatry teaching rounds at either LDS Hospital Medical Center under my direct supervision (15 - 20 hours per week, 2-week rotations)
1995 – 2002	Internal Med.	Residents in the LDS Hospital Internal Medicine Residency program participate in daily clinical work and teaching rounds at LDS Hospital (15 - 20 hours per week, 2 - 4 week elective rotation)

## AREAS of RESEARCH INTEREST

- \* Personality Theory – Co-developer of the Integrated Neurodynamic Evaluation of Personality with Dr. David Renks, Ph.D.
- \* Models for integrating biological, psychological, and social theories of

human behavior

\* Outcomes assessment of the treatment of psychiatric disorders in primary care – Author and developer of the Gardner Global Wellness System, an automated, interactive screener of biopsychosocial disorders for use in non-psychiatric settings

\* Psychopharmacology

## CLINICAL RESEARCH

1993	Principal Investigator	Fluvoxamine vs. Placebo in the Treatment of Panic Disorder, a flexible-dose, double-blind study comparing efficacy and safety, Upjohn Protocol M/2315/0012 and 0011
2001	Co-investigator	Feasibility and safety of a rule-based sedation protocol using novel broad-spectrum psychotropic agents for agitated critically ill, mechanically ventilated patients; Deseret Foundation Grant
2002	Co-investigator	Phase II double-blind clinical trial using novel broad-spectrum psychotropics for agitated critically ill, mechanically-ventilated patients; Deseret Foundation Grant
2002	Principal Investigator	A randomized, double blind, placebo-controlled study of three fixed doses of Aripiprazole in the treatment of institutionalized patients with psychosis associated with dementia of the Alzheimer type; Bristol-Myers Squibb protocol CN 138-004
2002	Principal Investigator	The use of a new psychological assessment tool (the Integrated Neurodynamic Assessment of Personality) for improving appropriate utilization of health care resources in patients who are “psychosocial high utilizers” of hospital and Emergency Department resources. Required research project for completion of the Advanced Training Program in Health Care Delivery Improvement.
2004	Principal Investigator	Phase II, randomized, double-blind, placebo controlled study of XXXX for the treatment of mild-moderate Alzheimer’s Disease. Fujisawa Protocol.
2004	Sub-Investigator	A randomized, double-blind comparison of placebo and atomoxetine hydrochloride in Adults with Attention Deficit/Hyperactivity Disorder, with an examination of impact of treatment on family functioning.
2009-2010	Medical Director	Center for Neuroscience Research. Lifetree Research. In this capacity I reviewed and participated in research design and implementation of neuropsychiatric and neurology research program at this Phase I research center.

## NATIONAL FACULTY or SPEAKERS BUREAUS

In this capacity, I have provided numerous lectures and consultations to a variety of professional and public audiences on topics involving psychiatric treatment and psychopharmacology. These are in addition to those listed under "Presentations."

- \* Abbott Laboratories
- \* Astra Zeneca Pharmaceuticals
- \* Bristol Myers Squibb
- \* Cephalon Pharmaceuticals
- \* Chamberlain Communications Group
- \* CME, Inc.
- \* Deborah Woods & Associates
- \* Eli Lilly and Company
- \* Forest Pharmaceuticals
- \* Glaxo Smith-Kline Pharmaceuticals
- \* Group Dynamics, LLC
- \* Janssen Pharmaceuticals
- \* Merck
- \* Optima Educational Solutions
- \* Organon Pharmaceuticals
- \* Physician Postgraduate Press
- \* Pragmaton
- \* Primedia
- Shire Pharmaceuticals
- Sunovion
- Wyeth Pharmaceuticals

## NATIONAL ADVISORY BOARDS

1995	Founding Member , Board of Advisors for Professional Standards, American Board of Forensic Medicine
2000 – 2005	Zyprexa (Eli Lilly)
2000 – 2002	Prozac Weekly (Eli Lilly)
1999 – 2000	Neuroscience Outcomes Research (Eli Lilly)
2005- -	Cross-Product Applications in Bipolar Disorder (Eli Lilly)
2005- -	Pharmacogenomics in Clinical Practice (Roche Diagnostics)
2000 – -	Duloxetine/Cymbalta (Eli Lilly)
2006-2007	Forensic and Liability Advisory Board.
2007-	Symbyax (Eli Lilly)
2008 --present	Takeda Pharmaceuticals/ S. Lundbeck Pharmaceuticals (two antidepressants in development)
2009 --	Sanofi Aventis
2012-present	Eli Lilly Global Neuroscience Advisory Board

## PROFESSIONAL EXPERIENCE

### EMPLOYMENT:

1972 –1973	Instructor	Environmental and Public Health, School of Public Health, Heri Hospital, Kigoma, Tanzania ( <i>volunteer service program</i> )
1973 – 1974	Asst. Campus Chaplain	Pacific Union College, Seventh-day Adventist Church, Angwin, California
1975 – 1976	Asst. Pastor / Dir. Youth Ministry	Sunnyvale Seventh-day Adventist Church, Sunnyvale, California
1979	Assoc. Pastor / Pastor	Turlock Seventh-day Adventist Church, Turlock, California
1988 – 2001	Chief	Consultation Liaison Psychiatry, University of Utah Health Sciences Center, Salt Lake City, Utah

1988 – 1991	Private Practice	General Adult Psychiatry, Western Institute of Neuropsychiatry, Salt Lake City, Utah (this practice included both in- and out-patient care, extensive use of ECT, and a variety of psychotherapeutic modalities)
1990 – present	Private Practice	Forensic Psychiatry involving expert testimony in civil (personal injury, malpractice, etc.) and criminal (primarily homicide) litigation.
1991 –1994	CEO / Medical Director	Mental Wellness Center at Holy Cross Hospital, Salt Lake City, Utah
1992 –1994	Chairman	Department of Psychiatry, Holy Cross Hospital, Salt Lake City, Utah
1994 –1995	Alienist	Utah State Hospital, Provo, Utah
1995 – 2001	Chief	Division of Consultation Liaison Psychiatry, University of Utah School of Medicine, Salt Lake City, Utah
1995 – 2002	Chief	Psychiatric Consultation Services, LDS Hospital, Salt Lake City, Utah
2002 – 2003	Chief	Psychiatric Consultation Services, Cottonwood Hospital and Alta View Hospital, Salt Lake City, Utah
2002 – 2004	Adult Psychiatrist	Intermountain Health Care, Primary Care / Psychiatric Integration Demonstration Project. Bryner Clinic. (Robert Wood Johnson Grant)
2004	Founding President and CEO	Institute for Neuroscience Research, Inc. Salt Lake City, Utah
2009-10	Medical Director	Lifetree Center for Neuroscience Research, Salt Lake City, Utah (This facility does research in drug development across Phase I –IV protocols. It specializes in Phase I studies and is licensed for 52 in-patient beds.)
2009-2011	Medical Director	South Valley Mental Health (Community Mental Health System)

## COMMITTEES

1989 –1990	Chair	Utilization Review / Medical Records Standards Committee, Western Institute of Neuropsychiatry, Salt Lake City, Utah
1991	Chair	Total Quality Impairment Committee, Western Institute of Neuropsychiatry, Salt Lake City, Utah
1994	Chair	Physicians Advisory Committee, Holy Cross Hospital, Salt Lake City, Utah
1994	Member	Quality Physician Network, Medical Information Services Advisory Board
1995 – 2001	Member	Hospital Risk Management Committee, University of Utah Health Sciences Center
1995 –1997	Member	High Utilizer Committee, Faculty Practice Organization, University of Utah
1995 –1997	Member	Committee for Development of Centers for Disease Management, University of Utah Faculty Practice Organization
1995 –1997	Member	Utah Mental Health Consortium

1995 – 1997	Member	Medical Leadership Council, University of Utah School of Medicine
1997 – 2001	Chair	Complex Case Management Committee, Faculty Practice Organization, University of Utah
1997 – 2002	Member	LDS Hospital Ethics Committee
1997 – 2003	Member	Intermountain Health Care Behavioral Health -- Primary Care Integration Task Force (RWJ Grant)

## CONSULTING

1987	Psychiatrist / Consultant	"The Imagination Workshop" - a clinical treatment program based on a therapeutic application of theater workshop techniques in the treatment of the chronically mentally ill.
1991	Psychiatric Consultant	External Board of Review for Clinical Training Programs, Brigham Young University, Provo, Utah
1991 – 1992	Psychiatric Consultant	"Iliad" - a commercial artificial intelligence system (software for clinical decision making), Applied Informatics, Salt Lake City, Utah
1992 – 1993	Psychiatric Consultant	Data Systems International, Layton, Utah (development of an integrated medical information management system)
1993	Psychiatric Consultant	Center for Family Development, Salt Lake City, Utah
1993 – 1994	Psychiatric Consultant	Youth Care, Inc. (adolescent residential treatment centers), Draper, Utah
1993 – 1994	Medical Director	Interface Psychological Services, Consultant, Salt Lake City, Utah
1994 – present	Psychiatric Consultant	Intergroup of Utah, Salt Lake City, Utah
1995	Member	CNS Advisory Board (regional), Bristol-Myers Squibb Pharmaceutical
1995	Member	CNS Advisory Board, Southwest region, Eli Lilly and Company
1996	Consultant	Development of Integrated Psychiatric Services, FHP of Nevada, Las Vegas, Nevada
1996	Psychiatrist / Consultant	Development of a disease management program for depression, PCS Health Systems, Inc., Phoenix, Arizona (PCS provides pharmacy benefit management services for 60 million lives in the United States)
2005	Consultant	Development of IVR Application for Clinical Depression for Healthcare Technologies, Inc. Madison, Wisconsin.
2007	Consultant	Psychiatrist consultant to the screenwriter, director and producer of the independent motion picture "Three Windows", including onset consultation with actors and the director.

2008	Consultant	Consultant and content developer for scenario based learning for The Atlantis Group – a national leader in strategic healthcare “Think Tanks” for government and industry.
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#### FORENSIC EXPERT WITNESS

I have served as an expert witness for numerous civil (i.e. medical malpractice, personal injury, labor relations, etc) cases  
I have also provided consultation/ expert testimony in many of the state’s high profile criminal cases, these include:

State of Utah vs. Eugene Woodland (“Captain Nemo”)

State of Utah vs. Ronnie Lee Gardner

State of Utah vs. Ronald Lafferty (featured prominently in the national best seller Under the Banner of Heaven, by Jon Krakauer).

State of Utah vs. Roberto Arguelles

State of Utah vs. Jorge Lire Garcia

State of Utah vs. Brian David Mitchell (Defendant in the case of Elizabeth Smart) (State competency phase)

State of Utah vs. Mark Hacking

State of Utah vs. Floyd Eugene Maestas

U.S. v. Cruz Joaquin Visinaiz

U.S. v. Brian David Mitchell (Federal case- both competency and criminal responsibility phases).



## BIBLIOGRAPHY

PUBLICATIONS / PAPERS:

1. Home is Where the Heart Is  
Gardner NC, and McLarty JL (Eds.), Andrews University Press, 1978.
2. The European Adventist Seminary Experience: An Educational / Social Research Assessment of Graduate Theological Education  
Masters thesis project, Masters of Divinity, Andrews University, 1978.
3. Clinical Bioethics: A model for Ethical Decision-making in Clinical Practice  
Masters thesis project, Masters of Arts in Ethics, Loma Linda University, 1983.
4. "The Profit Motive in American Medicine"  
A white paper for the American Medical Association study group, Health Policy Agenda for the American People, 1983.
5. "Clinical Applications of Electroencephalography in Psychiatry"  
Gardner NC, in Handbook of Psychiatry, Guze B (ed.), Chicago, Yearbook Medical Publishers Press, 1989.
6. "Personality Disorders"  
Gardner NC, in Handbook of Psychiatry, Guze, B (ed.), Chicago, Yearbook Medical Publishers Press, 1989.
7. "Fluoxetine Postmarketing Experiences: Unusual Adverse Effects and Drug Interactions"  
Adverse Drug Reaction News, Jan. 1991.
8. "Phentermine and Fenfluramine in Obesity Management: Top Ten Questions"  
Trends in Drug Therapeutics, 1996, vol. 10, No. 4.
9. "The Impact of Pharmacoeconomics on Medicine" (guest editor)  
Primary Psychiatry, 1998, vol. 5, No. 2.
10. "The Economic Implications of Antidepressant Therapy: Introduction to the Pharmacoeconomics of Antidepressants"  
Gardner NC, in Primary Psychiatry, 1998, vol. 5, No. 2, pgs. 45 - 56.
11. "Economic Implications of Antidepressant Therapy: Conclusions and Recommendations"  
Gardner NC, in Primary Psychiatry, 1998, vol. 5, No. 2, pgs. 65 - 69.
12. "The Psychodynamics of Functional Illness: Functional Visual Loss in Psychiatric Context". Proceedings of North American Neuro-Ophthalmology Society, 2003, pgs 180-185.
12. "Academic Highlights – Managing Bipolar disorder from Urgent Situations to Maintenance Therapy"  
Jain R, Jackson WC, Gardner NC, and Maletic V, J Clin Psychiatry 68:8, 2007, p.1290 -1300.

PRESENTATIONS:

1. "The Adventist Church and the Family," Keynote Speaker for National Conference, Andrews University, Berrien Springs, Michigan, 1977
2. "The Church and Single Life," Keynote Speaker for a Regional Conference, Southern Adventist College, Chattanooga, Tennessee, 1977
3. "Who Speaks for the Earth?" Presentation to a Conference on Christian Responsibility in the Nuclear Age, Loma Linda University, 1982

4. "Compulsive Paraphilia and Suicidal Behavior," Psychiatric Grand Rounds, West Los Angeles Veterans Administration Hospital, Los Angeles, California, 1985
5. "Religion and Medicine: Today and Tomorrow," Keynote Conference Speaker, Jerry Pettis Memorial Veterans Administration Hospital, Loma Linda, California, 1985
6. "Autism: Presentation, Course, and Treatment," Grand Rounds, Adolescent Division, UCLA Neuropsychiatric Institute, Los Angeles, California, 1986
7. "The Role of Religion in Health Care," Keynote Conference Speaker, Wadsworth Division, West Los Angeles Veterans Administration, Los Angeles, California, 1986
8. "G.I. Symptoms as Psychosomatic Conversion," Consultation Liaison Grand Rounds, UCLA Neuropsychiatric Institute, Los Angeles, California, 1987
9. "Alzheimer's Disease: Diagnosis and Treatment," Nursing Continuing Education Seminar, Los Angeles, California, 1987
10. "Psychiatry and Religion: Bridging Experiences," Continuing Education Conference, Los Angeles County Medical Association, Los Angeles, California, 1987
11. "Somatization in a Gynecologic Practice," Grand Rounds, Department of Obstetrics and Gynecology, University of Utah, 1989
12. "Somatization: Illness Without Disease," Grand Rounds, Eastern Idaho Medical Center, Idaho Falls, Idaho, 1989
13. "Guided Analytic Imagery in Clinical Practice," Presentation to the Utah Psychological Society, Salt Lake City, Utah, 1989
14. "Managing the Difficult Patient in the Hemodialysis Unit," Intermountain Hemodialysis Unit Directors Conference, Salt Lake City, Utah, 1989
15. "Panic: The Great Masquerader of Medical Illness," Grand Rounds, Department of Family and Preventive Medicine, University of Utah, April 1990
16. "Rediscovering the Sacred in the Healing Arts," Grand Rounds, Department of Psychiatry, Western Institute of Neuropsychiatry, October 1990
17. "Managing the Difficult Patient in the Critical Care Burn Unit," Inservice Seminar, Burn Unit Medical and Nursing Staff, University of Utah Medical Center, May 1991
18. "Psychiatric Illness in Medical Disguise," Program Chair and Presenter, Panic Disorder Conference, Division of Continuing Education, University of Utah, May 1991
19. "Depression in the Medically Ill Patient," Grand rounds, Department of Internal Medicine, University of Utah School of Medicine, September 1991
20. "The Appropriate Use of Controlled Substances in Clinical Practice," Invited Speaker, Annual Meeting of the Cochilla County Medical Society, Flagstaff, Arizona, October 1991
21. "The Use of Controlled Substances in Clinical Practice," presentation to the Staff of the Utah Division of Occupational and Professional Licensing and DEA, November 1991
22. "A Typology for Dissociative Disorders: Personality Profiles for Victims of Abuse," Staff Inservice Session, Community Counseling Center, Salt Lake City, Utah, February 1992

23. "Anxiety Disorders Complicated by Personality Disorder," Anxiety Disorders: The Diagnosis of the 90's Regional Conference, Red Lion Hotel, Salt Lake City, Utah, April 1992
24. "Managing the Borderline Patient in the General Hospital," Utah Association of Medical Society Workers, LDS Hospital, Salt Lake City, Utah, 1992
25. "Management of the Difficult Patient," Invited Presentation, American Academy of Family Practice Winter Symposium, Jackson Hole, Wyoming, April 1992
26. "Personality Styles and Clinical Practice," Invited Presentation, American Academy of Family Practice Winter Symposium, Jackson Hole, Wyoming, April 1992
27. "Finding Joy and Satisfaction in the Treatment of Borderline and Other Difficult Patients," Four Hour Professional Seminar for Mental Health Professionals, Salt Lake City, Utah, April 1992
28. "The Spiritual and Moral Transformation of American Medicine," Keynote Address for the Annual Banquet of the Clinical Faculty, Department of Internal Medicine, University of Utah School of Medicine, May 1992
29. "Personality and Personality Disorders: Diagnosis and Treatment," One Day Professional Seminar for Mental Health Professionals, Salt Lake City, Utah, September 1992
30. "The Reality of Dissociation and the Myth of Multiple Personality," Professional Seminar for Mental Health Professionals, Salt Lake City, Utah, November 1992
31. "Personality Profiles," Invited Presentation, Utah Department of Human Services, Park City, Utah, November 1993
32. "Borderline Personality Disorder in the Family," Invited Presenter, The Four Generational Family Conference, *Challenge of the Nineties*, Park City, Utah, October 1993
33. "Autonomy in Biomedical Ethics: A Psychiatric Perspective," Invited Lecturer, Biomedical Ethics Symposium, Alumni Postgraduate Convention, Loma Linda University School of Medicine, Loma Linda, California, April 1993
34. "Personality and Personality Disorders," Two-day Professional Seminar for Mental Health Professionals, Salt Lake City, Utah, May 1993
35. "Treatment of Depression in the Medically Ill," Invited Presentation, Psychiatric Update, University of Utah Department of Psychiatry and Division of Continuing Education Conference, December 1994
36. "Diagnosis and Treatment of Depression," Grand Rounds, Department of Internal Medicine, University of Utah, VA Medical Center, Salt Lake City, Utah, October 1994
37. "Office Management of Depression," Invited Speaker, University of Utah Department of Internal Medicine Annual Update, Park City, Utah, July 1994
38. "Conundrums in Case Management: The Role of Psychiatric Comorbidity," Utah State Case Manager Association, Annual Conference, Invited Presentation, Salt Lake City, Utah, May 1994
39. "Prozac: The Myth and the Reality," Invited Presentation for *Evening with the Experts*, University of Utah Neuropsychiatric Institute, Salt Lake City, Utah, January 1995
40. "New Advances in the Treatment of Obsessive-Compulsive Disorder," Invited Presentation, Southern Utah Psychiatric Association, Sundance, Utah, February 1995
41. "Loss of Control and Violence: The Role of the Practitioner," Invited Presentation, Annual Update for Internal Medicine, Snowbird, Utah, March 1995

42. "The Cost of Mind and Body: Symposia on the Economics of Psychiatric Illness for Insurance and Health Systems Executives and Clinical Leaders," Program Chair and Presenter, Salt Lake City, Utah, March 1995
43. "The Cost of Depression in the Work Place," Invited Presenter, a Conference for Business Leaders, Health Systems Executives, and Insurers, June 1995
44. "Critical Role of the Nurse Practitioner / Physician Assistant in the Treatment of Depression," Utah Physician Assistant Association, July 1995
45. "Psychiatry for the Non-Psychiatrist: A Review and Update," Grand Rounds, Logan Regional Medical Center, September 1995
46. "Psychiatry: Challenges and Opportunities in the Era of Managed Care," Nevada State Psychiatric Association, September 1995
47. "Medical Mimics of Psychiatric Disorders," Valley Mental Health Annual Scientific Conference, Salt Lake City, Utah, September 1995
48. "The Mind-Body Connection: Is There Room for Spirit?" Invited Presentation for *Evening with the Experts*, University of Utah Neuropsychiatric Institute, Salt Lake City, Utah, October 1995
49. "Obsessive-Compulsive Disorder: Diagnosis and Treatment," Grand Rounds, Pioneer Valley Medical Center, West Valley City, Utah, October 1995
50. "The Management of the Difficult Patient," Four-Hour Seminar, Human Affairs International, (Salt Lake City, Phoenix, Denver, Kansas City), October / November 1995
51. "Integrated Disease Management: Applications for Managed Care," Medical Staff Grand Rounds, Foundation Health, Inc., Sacramento, California, October 1995
52. "Somatoform Disorder," Invited Presentation, Psychiatric Update for Primary Care Continuing Education Conference, University of Utah, December 1995
53. "The Pharmacology of the Newer Antidepressants," The Nevada Psychiatric Association, Las Vegas, Nevada, December 1995
54. "Patient's Conceptions of Heaven: A Clinician's Response," Grand Rounds, University of Utah Neuropsychiatric Institute, February 1996
55. "Psychiatric Disorders in Women During the Childbearing Years," Grand Rounds, Washoe Medical Center, Carson City, Nevada, April 1996
56. "Psychiatry: The Complete or Obsolete Profession: The Emerging Roles for Psychiatry in the 21st Century," Grand Rounds, University of Utah Neuropsychiatric Institute, May 1996
57. "The Recognition and Treatment of Depression in the Geriatric Patient," Tucson Psychiatric Society, Tucson, Arizona, May 1996
58. "The Role of Psychotropic Medications in the Management of Chronic Pain," Invited Presentation for First Annual Intermountain Symposium on Pain and Pain Management, Deer Valley, Utah, June 1996
59. "Personality - Dynamics and Disorder," a Case Conference for Clinicians, Valley Mental Health, Salt Lake City, Utah, June 1996
60. "Ethical and Emotional Aspects of the DNR Decision," LDS Hospital, Salt Lake City, Utah, July 1996

61. "Recent Advances in the Pharmacologic Management of Bipolar Disorder," Utah Psychiatric Association Conference, Silver Lake Lodge, Deer Valley, Utah, August 1996
62. "Principles of Antidepressant Selection," Grand Rounds, Wasatch Canyons Hospital, Salt Lake City, Utah, August 1996
63. "Clinical and Cost Effectiveness of Antidepressant Therapy," Grand Rounds, Denver Mental Health, Denver, Colorado, August 1996
64. "Simple Steps to the Optimal Pharmacotherapy of Depression," Grand Rounds, Department of Psychiatry, Texas Tech University School of Medicine, Lubbock, Texas, September 1996
65. "What's New in Psychiatry? An Update for Practicing Internists," Annual Meeting, Utah Chapter, American College of Physicians, Salt Lake City, Utah, September 1996
66. "The Cost Effectiveness of Treatment for Mental Illness," an invited lecture for members and staff of the Utah State Legislature, Salt Lake City, Utah, October 1996
67. "Simple Steps to Optimal Antidepressant Treatment in Primary Care," Grand Rounds, Department of Family Medicine, University of Utah School of Medicine, Salt Lake City, Utah, January 1997
68. "The Difficult Behavioral Patient - Psychodynamics and Principles for Management," Grand Rounds, Department of Psychiatry, Intermountain Health Care, Urban Region, Salt Lake City, Utah, January 1997
69. "Finding Joy in working with the Severely Personality Disordered Patient," Utah State Division of Mental Health Annual Spring Conference, Park City, Utah, May 1997
70. "Fluoxetine - It's Niche in the Current Marketplace - A Clinicians Perspective," Invited presentation, Eli Lilly Southwest Region Annual Sales Meeting, June 1997
71. "Advances in Psychopharmacology - An Update for non-Psychiatrists," Grand Rounds, Columbia Sunrise Hospital, Las Vegas, Nevada, June 1997
72. "Optimal Antidepressant Therapeutics for the Depressed Patient in Family Practice," Colorado Academy of Family Practice Annual Meeting, Steamboat Springs, Colorado, June 1997
73. "Simple Steps to Optimal Antidepressant Treatment in Primary Care," Texas Academy of Family Practice Annual Meeting, Arlington, Texas, July 1997
74. "The Optimal Use of the Newer Antidepressants in Primary Care," Grand Rounds, Nellis Air Force Base Medical Center, Las Vegas, Nevada, August 1997
75. "The Role of the Psychiatric Expert in Homicide Trials," invited presentation, Utah State Homicide Conference sponsored by the Attorney General's Office Prosecution Council, Zion National Park, Springdale, Utah, August 1997
76. "Principles of Antidepressant Selection for the Primary Care Physician," Columbia-Mountain View Hospital Grand Rounds, Las Vegas, Nevada, September 1997
77. "Making the Impossible Possible: Principles of Effective Therapy with the Severely Personality Disordered Patient," keynote address, Western States Regional Mental Health Annual Conference, Salt Lake City, Utah, September 1997
78. "The Rewards of Medicine," invited lecture orientation symposium, First Year Medical Student Class, University of Utah School of Medicine, Salt Lake City, Utah, September 1997
79. "Psychiatric Disorders in the Childbearing Years," Grand Rounds, Department of Obstetrics and Gynecology,

St. Luke's Medical Center, Denver, Colorado, September 1997

80. "Anxiety and Depressive Disorders Across the Female Life Cycle," Grand Rounds, Department of Obstetrics and Gynecology, St. Joseph's Medical Center, Denver, Colorado, October 1997
81. "Simple Steps Toward Optimal Therapy of Depressions in Primary Care," Grand Rounds, Department of Internal Medicine, St. Joseph's Medical Center, Denver, Colorado, October 1997
82. "Difficult Patients - Difficult Choices: A symposium on the Pharmacoeconomics of Treating Depression," Maricopa Medical System, Phoenix and Tucson, Arizona, October 1997
83. "The Psychodynamics of Somatization - Profiles of Personality Types," Grand Rounds, Department of Psychiatry, University of Arizona School of Medicine, Tucson, Arizona, October 1997
84. "A Practical Guide to Antidepressant Therapy in Primary Care," invited lecture, Annual Update for Internal Medicine, Deaconess Medical Center, Oklahoma City, Oklahoma, November 1997
85. "Telling the Truth When the Truth is Bad," Medical Ethics Conference, Division of Medical Ethics, LDS Hospital, Salt Lake City, Utah, December 1997
86. "Simple Steps to Optimal Outcomes in the Treatment of Depression in Primary Care," Grand Rounds, Department of Internal Medicine, St. Joseph's Medical Center, Phoenix, Arizona, January 1998
87. "Restricting Pharmaceutical Usage: The Good, the Bad, and the Ugly," Grand Rounds, Department of Psychiatry, Maricopa Medical Center, Phoenix, Arizona, January 1998
88. "The Diagnosis and Treatment of Depression for the Practicing OB-GYN," Grand Rounds, Department of Obstetrics and Gynecology, Good Samaritan Medical Center, Phoenix, Arizona, January 1998
89. "Simple Steps to Optimal Outcomes in the Treatment of Depression," Grand Rounds (combined), Department of Obstetrics and Gynecology, Maricopa and St. Joseph's Medical Centers, Phoenix, Arizona, January 1998
90. "Restricting Pharmaceutical Usage: The Good, the Bad, and the Ugly," Grand Rounds, Department of Psychiatry, Good Samaritan Hospital, Phoenix, Arizona, January 1998
91. "The Difficult Patients - Psychodynamics and Principles for Management," Grand Rounds, Department of Internal Medicine, Maricopa Medical Center, Phoenix, Arizona, January 1998
92. "A Practical Guide to Antidepressant Therapy in Primary Care," Grand Rounds, Department of Internal Medicine, Good Samaritan Medical Center, Phoenix, Arizona, February 1998
93. "Simple Steps to Optional Outcomes in the Treatment of Depression in Primary Care," Grand Rounds, Department of Internal Medicine, Veterans Administration Medical Center, Phoenix, Arizona, February 1998
94. "Neuropsychiatric Issues in the Post-menopausal Period," Regional Conference, Deaconess Medical Center, Oklahoma City, Oklahoma, February 1998
95. "Clinical and Economic Issues in the Use of Antidepressants," Northern Utah – United Health Care Physicians, Ogden, Utah, February 26, 1998
96. "The Antisocial and Borderline Personality Types: Essentials of Diagnosis and Treatment, Part I," Grand Rounds, Utah State Hospital, Provo, Utah, March 26, 1998
97. "A Practical Guide to Antidepressant Therapy in Primary Care," Grand Rounds, Department of Internal Medicine, St. Joseph's Medical Center, Denver, Colorado, March 1998
98. "The Optimal Use of Antidepressants in Primary Care," Grand Rounds, Midland Regional Medical Center

(Paracelcus), Midland, Texas, April 1998

99. "Single Steps to Optimal Outcomes in the Treatment of Depression in Primary Care," Medical Staff Grand Rounds, Washoe Medical Center, Carson City, Nevada, May 1998
100. "The Neuropharmacology of Depression," invited lecture, Annual Meeting of the American Association of Physician Assistants, Salt Lake City, Utah, May 1998
101. "Personality and the Disordered Personality," invited symposium, Annual Meeting of the American Association of Physicians Assistants, Salt Lake City, Utah, May 1998
102. "The Antisocial and Borderline Personality Types: Essentials of Diagnosis and Treatment, Part II," Utah State Hospital, Provo, Utah, June 1998
103. "The Optimal Use of Antidepressants in Primary Care," invited lecture, Annual Scientific Meetings of the San Diego Academy of Family Practice, San Diego, California, June 1998
104. "Antidepressant Update," Grand Rounds, Nellis Air Force Base, Las Vegas, Nevada, June 1998
105. "Psychopharmacology Update: Treatment of Mood and Anxiety Disorders," National Nurse Practitioners Conference, Keystone, Colorado, July 1998
106. "Psychiatric Disorders in the Child Bearing Years," National Nurse Practitioners Conference, Keystone, Colorado, July 1998
107. "Optimal Use of the Newer Antidepressants," Annual Symposium, Utah Academy of Physician Assistants, Snowbird, Utah, August 1998
108. "Clinical and Pharmacoeconomic Comparisons of the New Antidepressants," Continuing Education Symposium of the School of Pharmacy, University of Oregon, Eugene, Oregon, October 1998
109. "A New Developmental Approach to Classification of Axis II Disorders," Grand Rounds, Department of Psychiatry, James A. Haley VA Hospital, Tampa Bay, Florida, December 1998
110. "Clinical and Pharmacoeconomic Comparisons of the New Antidepressants," Central Florida Psychiatric Society, December 1998
111. "Clinical and Pharmacoeconomic Comparisons of the New Antidepressants," Tucson Psychiatric Society, January 1999
112. "The Road to the Final Four," Grand Rounds, Department of Internal Medicine, University of Utah, Salt Lake City, Utah, March 1999
113. "Principles of Optimal Antidepressant Selection," Cincinnati Psychiatric Society, Cincinnati, Ohio, April 1999
114. "Safety Issues of the Newer Antidepressants," invited lecture, World Psychiatric Conference, Indianapolis, Indiana, May 1999
115. "Principles of Optimal Antidepressant Use in Primary Care Practice," Grand Rounds, St. Peter's Memorial Hospital, Helena, Montana, June 1999
116. "On Human Understanding: Toward a Person Centered Taxonomy of Personality, Part I," Grand Rounds, Department of Psychiatry, University of Utah, Salt Lake City, Utah, June 1999
117. "Clinical and Pharmacoeconomic Comparisons of the Newer Antidepressants," Grand Rounds, San Bernardino Division of Mental Health Sciences, San Bernardino, California, July 1999
118. "Antidepressant Update," Annual Symposium, Utah Academy of Physician Assistants, Snowbird, Utah, August

1999

119. "Myths and Realities of Antidepressant Therapy," Grand Rounds, Department of Internal Medicine, Maricopa Medical Center, Phoenix, Arizona, September 1999
120. "Pharmacologic Management of the Agitated/Insomniac Patient on Chronic Mechanical Ventilation," Inservice for Critical/Intensive Care Services, LDS Hospital, Salt Lake City, Utah, October 1999
121. "Conversion and Dissociative Symptoms in a Patient Presenting for Hyperbaric Treatment for 'The Bends,'" Grand Rounds, Internal Medicine Department, LDS Hospital, Salt Lake City, Utah, October 1999
122. "Myths and Realities of Antidepressant Therapy," Grand Rounds, Medical Staff, Marcus Daly Memorial Hospital, Hamilton, Montana, November 1999
123. "Myths and Realities of the Newer Antidepressants," Contra Costa County Psychiatric Society, Oakland, California, November 1999
124. "Clinical and Pharmacoeconomic Comparisons of the Newer Antidepressants," David Grant Medical Center, Travis Air Force Base, Sacramento, California, November 1999
125. "Myths and Realities of the Newer Antidepressants," Grand Rounds, Department of Psychiatry and Psychosocial Services, Memorial Hospital, Salem, Oregon, November 1999
126. "The Road to the Final Four: An Evidence-Based Approach to a Clinically Relevant Formulary for Antidepressants," Grand Rounds, Medical Staff, Hill Air Force Base, Ogden, Utah, December 1999
126. "Conversion Hemi-Paralysis Mimicking Traumatic Spinal Cord Injury: Differential Diagnosis and Dynamics," Trauma Services Grand Rounds, LDS Hospital, Salt Lake City, Utah, January 2000
127. "Myths of Antidepressant Therapy," Grand Rounds, Medical Staff, Dixie Regional Medical Center, St. George, Utah, January 2000
128. "The Road to the Final Four: An Evidence-Based Approach to a Clinically Relevant Formulary for Antidepressants," Grand Rounds, Peterson Air Force Base, Colorado Springs, Colorado, February 2000
129. "The Road to the Final Four: An Evidence-Based Approach to a Clinically Relevant Formulary for Antidepressants," Grand Rounds, U.S. Air Force Academy Medical Center, Colorado Springs, Colorado, February 2000
130. "Somatic Presentations of Psychiatric Disease," invited lecture, Annual Update in Internal Medicine, Department of Internal Medicine, University of Utah, Park City, Utah, February 2000
131. "On Human Understanding: Toward a Person Centered Taxonomy of Personality, Part II," Grand Rounds, Department of Psychiatry, University of Utah, Salt Lake City, Utah, February 2000
132. "Antidepressant Update," Tucson Osteopathic Society Annual Conference, Tucson, Arizona, March 2000
133. "Essential Issues in Treating Mood Disorders in Primary Care," Department of Internal Medicine, University of Arizona, Tucson, Arizona, March 2000
134. "The Pharmacoeconomics of Depression and Antidepressant Therapy," Resident Conference, Department of Psychiatry, University of Texas, Southwestern, Dallas, Texas, April 2000
135. "Principles of Optimal Antidepressant Selection in Primary Care," Regional CME Conference, Foundation for Care Management, Seattle, Washington, May 2000
136. "The Road to the Final Four – An Evidence-based Approach to Optimal Antidepressant Selection in Primary Care," Grand Rounds, St. Joseph's Medical Center, Bellingham, Washington, June 2000



137. "Critical Issues in the Diagnosis and Treatment of Mood Disorders," Grand Rounds, Nellis Air Force Base, Las Vegas, Nevada, June 2000
138. "Principles of Evidence-based Antidepressant Selection," Department of Psychiatry, Veteran's Administration Hospital, Salt Lake City, Utah, August 2000
139. "Principles of Optimal Antidepressant Selection in Primary Care," Grand Rounds, Montrose Community Hospital, Montrose, Colorado, September 2000
140. "Advances in Treatment of Psychiatric Disorders in Primary Care," Clinical Treatment Unit, Hill Air Force Base, Ogden, Utah, September 2000
141. "Antidepressant Update for Primary Care," Continuing Education for Primary Care, Air Force Academy Health Service, Colorado Springs, Colorado, September 2000
142. "Managing the Difficult Patient," Department of Internal Medicine, Salt Lake Veteran's Administration Hospital, Salt Lake City, Utah, September 2000
143. "Personality and Personality Disorders – The Neurodynamic Context of Sociopathy," Forensic Mental Health Division, Los Angeles County Metropolitan Correctional Facility, Los Angeles, California, September 2000
144. "Antidepressant Update," Continuing Medical Education Conference, University of California – Davis, Sacramento, California, October 2000
145. "The Road to the Final Four – An Evidence-based Approach to an Optimal Antidepressant Formulary for Primary Care," Grand Rounds, St. Peter's Hospital, Helena, Montana, October 2002
146. "Somatoform Disorders, Personality Disorders, and Mood Disorders – Clinical Management of the Interface," Grand Rounds, Pathways Medical Treatment Center, Kalispell Regional Medical Center, Kalispell, Montana, November 2000
147. "Rethinking Personality Theory," Grand Rounds, Department of Psychiatry, LDS Hospital, Salt Lake City, Utah, January 2001
148. "Bipolar Disorder: Optimal Psychopharmacology of Acute Mania," Department of Psychiatry, University of Utah, Salt Lake City, Utah, February 2001
149. "The Broad Spectrum Nature of Atypical Antipsychotics: In Pharmacology and Clinical Practice," Department of Psychiatry, University of New Mexico, Albuquerque, New Mexico, March 2001
150. "Personality and Personality Disorders – The Neurodynamic Context of Sociopathy," Grand Rounds, Atascadero State Hospital, San Luis Obispo, California, May 2001
151. "Psychopharmacology Update – Recent Advances and Future Directions," Utah Nurse Practitioners Association, Salt Lake City, Utah, June 2001
152. "New Solutions for Old Problems: The Role of Atypical Antipsychotics in General Medicine Care," Grand Rounds, Northeastern Colorado Medical Center, Greeley, Colorado, June 2001
153. "Redefining Efficacy: How Recent Advances in Neuroscience and Psychopharmacology are Changing Treatment Paradigms in Psychiatry," Grand Rounds, Dade County Mental Health Department, Dade County, Florida, June 2001
154. "Personality and Pathology – The Relationship of Axis I to Axis II Disorders," Poudre Valley Psychiatric Center, Ft. Collins, Colorado, July 2001

155. "Structures of Human Understanding: Toward a Person-centered Taxonomy of Personality," The Seventh Annual James W. Joliff Memorial Endowment Lectureship, Providence Health Center, Waco, Texas, October 2001
156. "The Dynamics of the Family and Depression," Keynote Address, Annual Symposium of the Intermountain Health Care Women's Health Initiative, Salt Lake City, Utah, October 2001
157. "The Use of Atypical Antipsychotics in Primary Care," Grand Rounds, Kona Community Hospital, Kona, Hawaii, November 2001
158. "The Use of Atypical Antipsychotics in Primary Care," Grand Rounds, Waimea Community Hospital, Waimea Community Hospital, Waimea, Hawaii, November 2001
159. "The Use of Atypical Antipsychotics in Primary Care," Grand Rounds, Mt. Carmel Regional Medical Center, Colville, Washington, December 2001
160. "Antidepressant Update," Eighth Annual Scientific Conference, Utah Academy of Physician Assistants, University of Utah, Salt Lake City, Utah, December 2001
161. "Redefining Efficacy: How Advances in Neuroscience and Psychopharmacology are Changing Treatment Paradigms in Psychiatry," Southern California Psychiatric Society, Los Angeles, California, December 2001
162. "Redefining Efficacy: How Recent Advances in Neuroscience and Psychopharmacology are Changing Treatment Paradigms in Psychiatry," Grand Rounds, Summit Point State Hospital, Cincinnati, Ohio, January 2002
163. "Rethinking Personality Theory in the Age of Neuroscience," Grand Rounds, Department of Psychiatry, University of California – Irvine, Anaheim, California, February 2002
164. "Rethinking Personality Theory in the Age of Neuroscience," Grand Rounds, Department of Psychiatry, Harbor-UCLA, Torrance, California, February 2002
165. "When Are They Well and How Can We Tell? Measuring Antidepressant Outcomes in the Real World," Depression Thought-Leader Summit, Half Moon Bay, California, February 2002
166. "The Role of Novel Psychotropics in Agitated Critically Ill Patients," Cottonwood Hospital, Murray, Utah, February 2002
167. "Personality Disorder at the Interface with Neurologic Disease," Invited Lecturer, Western Intermountain Neurologic Organization Annual Conference, Salt Lake City, Utah, March 2002
168. "Atypical Antipsychotics in Primary Care," Grand Rounds, Aurora North Medical Center, Aurora, Colorado, March 2002
169. "Rethinking Personality Theory in the Age of Neuroscience," Portland Veteran's Medical Center, Portland, California, April 2002
170. "Rethinking Personality Theory in the Age of Neuroscience," Grand Rounds, Oregon State Hospital, Eugene, Oregon, April 2002
171. "The Challenge of Personality Disorders in Health Care," Keynote Address, Utah Society of Social Work Leadership in Health Care Annual Meeting, Salt Lake City, Utah, April 2002
172. "The INDEP: Could It Be a New Radiography of the Self?" Grand Rounds, University of Utah, Department of Psychiatry, Salt Lake City, Utah, May 2002
173. "Healing from the Heart: A Journey Inward, A Journey Outward," Keynote Address; Annual Conference of the Utah Women's Mental Health Taskforce, Sandy Convention Center, Sandy, Utah, October 2002

174. "Novel Broad Spectrum Psychotropics in Managing Agitated Critically Ill Patients," Grand Rounds, Department of Neurology, Psychiatry, and Neuro-oncology, MD Anderson Medical Center, October 2002
175. "Redefining Efficacy: How Advances in Neuroscience and Psychopharmacology Are Changing Treatment Paradigms in Psychiatry," Grand Rounds, Department of Psychiatry, University of New Mexico, School of Medicine, Albuquerque, New Mexico, November 2002
176. "The Atypical Antipsychotics as Broad Spectrum Psychotropics," Grand Rounds, Terrell State Hospital, Terrell, Texas, January 2003
177. "Novel Broad Spectrum Psychotropics in Managing Agitated Critically Ill Patients," Department of Psychiatry, University of Texas, Southwest Medical Center, Dallas, Texas, January 2003
178. "Recognition, Diagnosis and Treatment of Depression in Patients Presenting for Evaluation of Disordered Sleep," Grand Rounds, Combined Program for Sleep Medicine, University of Utah / Intermountain Health Care, Salt Lake City, Utah, January 2003
179. "Redefining Efficacy: How Advances in Neuroscience and Psychopharmacology Are Changing Treatment Paradigms," Grand Rounds, Good Samaritan Hospital, Department of Psychiatry / Residency Program, Phoenix, Arizona, January 2003
180. "Rethinking Personality Theory in the Age of Neuroscience, " Four-hour Seminar in Personality and Personality Disorders, Patton State Hospital, San Bernardino, California, January 2003
181. "The Atypical Antipsychotics as Broad Spectrum Psychotropics," Grand Rounds, Department of Psychiatry, Palo Alto Veteran's Administration Hospital, Stanford University, Palo Alto, California, January 2003
182. "The Psychodynamics of 'Functional Illness': Functional Visual Loss in Psychiatric Context," Invited presentation, 29<sup>th</sup> Annual Meeting of the North American Neuro-ophthalmology Society, Snowbird Resort, Utah, February 2003
183. "Psychopharmacology of Attention Deficit Disorder," Grand Rounds, Aurora North Medical Center, Aurora, Colorado, April 2003
184. "An Integrative Theoretical Model for Bridging Axis I and Axis II Disorders," Grand Rounds, Atascadero State Hospital, San Luis Obispo, California, July 2003
185. "Rethinking Personality Theory in the Age of Neuroscience, " Department of Psychiatry, Fresno VA Medical Center, UC San Francisco Residency Training Program, Fresno, California, September 2003
186. "Managing Psychotic Emergencies in General Medical Patients," Grand Rounds, St. Luke's Hospital, Boise, Idaho, September 2003
187. "Managing Psychotic Emergencies in General Medical Patients," Grand Rounds, Nampa Community Hospital, Nampa, Idaho, September 2003
188. "Acute Psychiatric Emergencies in the General Hospital Patient," Invited Lecturer, 27<sup>th</sup> Annual Winter Conference, Idaho Chapter, American College of Physicians, Sun Valley, Idaho, January 2004
189. "Neuroscience – the Boundary of Mood Disorder and Personality Disorder," Grand Rounds, Metropolitan State Hospital, Norwalk, California, January 2004
190. "The Psychopharmacology and Clinical Potential of Dopamine Partial Agonism," Grand Rounds, Blackfoot State Hospital, Blackfoot, Idaho, January 2004.

191. "Sleep Disturbances in Bipolar Disorder and Their Relationship to Primary Sleep Disorders" Grand Rounds, Joint Program in Sleep and Sleep Disorders, LDS Hospital and the University of Utah. March, 2004
192. "Faith, Fundamentalism, and Frontal Lobe Function: Reflections on Delusions and Devotion in the Age of Neuroscience" invited lecture, Generations Conference. Salt Lake City, Utah. April, 2004.
194. "The Choice of a Lifetime: Healing from the Heart" Keynote Address, University of Utah School of Medicine White Coat Ceremony, Salt Lake City, Utah. August, 2004
195. "Endocrine and Metabolic Issues in the Treatment of Severe Mental Illness" Grand Rounds, Wyoming State Hospital, Evanston, Wyoming. September, 2004
196. "Thinking Outside the Boxes: The Emerging World of Psychopharmacology in the Age of Neuroscience" Grand Rounds, St. Patrick's Medical Center, Missoula, Montana, September, 2004
197. "Medical Co-morbidities and the Treatment of Severe Mental Illness" Grand Rounds, Eastern Washington State Hospital, February, 2005
198. "Religion and the Developing Self: A Conceptual Model for the Clinical Assessment of the Religiously Committed Patient". Grand Rounds, University of San Francisco – Fresno, Department of Psychiatry, April, 2005.
199. "Faith, Fundamentalism and Frontal Lobe Function: Reflections on Devotion and Delusion in the Age of Neuroscience". UCSF/Fresno Center for the Study of Consciousness, Spirituality and Culture Endowed Lectureship. April, 2005.
200. "Mind, Matter, Meaning and Metaphor: Reflections on the Crisis in Science and Religion" Grand Rounds, University of Utah, Department of Psychiatry, Grand Rounds, September, 2005
201. "The Psychosocial Evaluation of the Transplant Patient: Moving Beyond Particulars to the Process and the Person" Opening Keynote Address, International Society of Transplant Social Workers Annual Conference, Salt Lake City, Utah, September, 2005.
202. "Seductions of Certainty: Reflections on the Crisis in Science and Religion and the Possibility of Faith in the Post-Modern Age of Neuroscience", The Wil Alexander Endowed Lectureship, Loma Linda University, March, 2006.
203. "Danger –Opportunities: Reflections on the Transformation Possibilities of the Psychosocial Evaluation of the Transplant Patient" - Fifth Annual Centura Health/ Inverness Conference – Current Issues in Organ Transplantation. Denver, Colorado, July 7, 2006
204. "Brain and Behavior on Trial: Reflections of Forensic Psychiatrist on Individual Freedom and Personal Responsibility in the Age of Neuroscience", 11<sup>th</sup> Annual Northwest Research and Education Institute Conference. Billings, Montana, April, 2007.
205. "The Neurocircuitry of Infallability \_ Reflections on Inspiration and Insanity" Visiting Scholar Lectureship, Southwestern University, Keane, Texas. January 10, 2008.
206. "The Emerging Neuroscience of Mood Disorders and What it Means for Clinical Practice" Eastern Idaho Regional CME Conference. June, 2008.
207. "The Neurobiology of Bipolar Disorder". University of Utah Neuropsychiatric Institute, Medical Staff Educational Conference. December 2008

208. “The Neurobiology of Major Depressive Disorder” University of Utah Neuropsychiatric Institute, Medical Staff Educational Conference, February, 2009.
209. “The Neurobiology of Bipolar Disorder” Invited lecture. U.S. Psychiatric Congress, Las Vegas, Nevada, November, 2009.
210. “The Neurobiology of Bipolar Disorder” Invited lecture. University of California Irvine, Department of Psychiatry. November, 2009.
211. “Treating Major Depression in Adults: Evidence Based Strategies to Depression” Invited lecture. U.S. Psychiatric Congress, Orlando, Florida. November, 2010.
212. “Treatment and Transformation: Molecules and Miracles in Person-Centered Care” Keynote Address, Utah NAMI Annual Conference. Salt Lake City, Utah. November, 2010.
213. “Immanuel and the Insanity Defense: What Did We Learn from the Elizabeth Smart Case” Grand Rounds, UCLA Department of Psychiatry. Harbor-UCLA Medical Center. March. 2011.
214. “Immanuel and the Insanity Defense: What Did We Learn from the Elizabeth Smart Case?” Invited lecture, US Psychiatric Congress, Las Vegas, Nevada, Nov. 2011.
215. “Disease, Distress, Disguise or Deception: Recognizing and Managing Illness Behavior in Clinical and Forensic Settings”. Invited lecture- 3<sup>rd</sup> Annual Renaissance Behavioral Medicine Conference. McAllen, Texas. Nov, 2011.
216. “Understanding the Patient Behind the Disease” Keynote address. Regional Respiratory Therapy Continuing Education Conference, LDS Hospital. LDS Hospital. March 22, 2012.
217. “Neurobiologic Mechanisms of Depression” invited lecture at the Pain and CNS Forum (an international conference with attendees from 25 countries). June 2, 2012. Cancun, Mexico.
218. “The Noradrenergic Effects of Managing Major Depressive Disorder” invited lecture at the Pain and CNS Forum, June 2, 2012. Cancun, Mexico.



## **CERTIFICATE OF SERVICE**

The undersigned hereby certifies the forgoing was served by email on  
October 28, 2013 to the Petitioners' counsel of record upon the following:

Jonathan J. Krit  
Amin Talati, LLC  
55 West Monroe Street, Suite 3400  
Chicago, Illinois 60603  
jonathan@amintalati.com  
patent@amintalati.com

Joseph E. Cwik  
120 S. Riverside Plaza, Suite 2200  
Chicago, Illinois 60606  
Joseph.Cwik@huschblackwell.com

Erik B. Flom  
120 S. Riverside Plaza, Suite 2200  
Chicago, Illinois 60606  
Erik.Flom@huschblackwell.com

Dated: October 28, 2013

/ Jitendra Malik /  
Jitendra Malik, Ph.D, Esq.,  
Reg. No.: 55,823  
Alston & Bird, LLP  
Bank of America Plaza  
101 South Tryon Street, Suite 4000  
Charlotte, North Carolina 28280-4000  
Telephone: (704) 444-1115  
Facsimile: (704) 444-1695  
E-mail: [jitty.malik@alston.com](mailto:jitty.malik@alston.com)