#### Dr. Laura Roberts (00:00):

Hi, I'm Dr. Laura Roberts, Editor-in-Chief for the Books Portfolio of the American Psychiatric Association, and welcome to the APA Books Podcast. Today we are speaking with Dr. Alan Schatzberg. Alan is the Kenneth T. Norris Jr. Professor in the Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine. Alan, along with our colleague, Dr. Charlie Nemeroff, is also the editor of the APA Textbook of Psychopharmacology. The fifth edition of this textbook came out in 2017. Hey, thank you very much.

Dr. Alan Schatzberg (00:40):

How are you?

Dr. Laura Roberts (00:41):

I'm good.

Dr. Alan Schatzberg (00:41):

If I was [inaudible 00:00:42], I would say, "How are you?"

# Dr. Laura Roberts (00:46):

Well, Alan, I'm so happy that you came to visit with me and talk about this wonderful textbook that you and Charlie have put together. Do you know that almost 30,000 copies of this textbook have been sold since you put together that first edition in 1995? It's-

#### Dr. Alan Schatzberg (01:00):

That is absolutely terrific. I didn't really know the exact number, but it's terrific.

### Dr. Laura Roberts (01:05):

Yeah, it's phenomenal. Can you tell me a little bit about what led you to build this book? What was the idea behind the textbook?

# Dr. Alan Schatzberg (01:13):

Well, the textbook really follows a previous that I did with Jonathan Cole. It was called The Manual of Clinical Psychopharmacology. We did that in 1986. We did it as a guide to the clinician, or to the trainee, to help them figure out what is the best way to prescribe drugs, select drugs, evaluate patients for medications, et cetera. In 1986, it was the period of transition. Transition from a more psychosocial approach to a more pharmacologic and somatic approach. We really thought there was a need for a book that was readable, that was geared towards the clinician, that was not encyclopedic in scope, but really was much more user friendly.

# Dr. Alan Schatzberg (02:01):

As psychopharmacology developed beyond 1986, we realized that we needed to have something more of a textbook; a textbook for students, for practitioners, for trainees, a textbook that really put much more of a perspective on psychopharmacology and also talked about the biologic basis of disorders, how trained clinicians use pharmacology, and we decided then that we would come up with a textbook of psychopharmacology. It really started with a manual, and that textbook I've done for now five editions

with my good friend and colleague, Charlie Nemeroff, who was, at the time we started, the chair at Emory, and is now the chair at the University of Miami.

# Dr. Alan Schatzberg (02:55):

That's the historical basis of the Textbook of Psychopharmacology, and as you have noted, we're now in our fifth edition of the textbook and the manual has gone through eight editions. Both of these have really done well in terms of popularity, in usefulness, and it's been a great satisfaction to me to try to help folks learn more about psychopharmacology and a practice at a higher level.

#### Dr. Laura Roberts (03:29):

One of the things that I love about the textbook is its structure. You have the first component is really about principles of psychopharmacology, and it provides this basic foundation for understanding really the remaining sections of the book, and then classes of psychiatric treatments where you go into the different pharmacologic agents. And each of those chapters is fabulous, because it talks about the history and discovery of the medication, mechanism of action, pharmacokinetics, indications and efficacy, side effects, drug-drug interactions. It's very predictable, accessible, valuable sections in that area. And then the third section is on pharmacological treatment of different patient populations, which is phenomenal. And the appendix is fantastic, with all the different medications. How did you arrive at that structure? What were you thinking when you put that together?

# Dr. Alan Schatzberg (04:22):

Well, we knew we had to provide a context for the development of psychopharmacology. It's hard to understand much about using a drug, unless you have certain basic concepts, basic precepts that you've, in fact, gone over. People who use drugs need to know something about blood levels. They need to know something about the degradation of the drug. They need to know something about neurotransmitters and how drugs affect neurotransmitters. You can't just give them a list of drugs. You can't just do a PDR. And you need to provide a context. We decided that it made sense first to give them a bit of a primer in neuroscience, as it relates to psychopharmacology. We decided to have chapters about neurotransmitters in different systems. These various drugs work on neurotransmitter systems, you need to know about the neurotransmitter system. We decided we needed to explain to folks about certain pharmacogenetic principles, certain principles about testing drugs, et cetera, so we had to provide that framework.

#### Dr. Alan Schatzberg (05:42):

The framework is a general framework. It needs to cover all the compounds. There are similarities amongst many of these, and then it need to be specific for mechanisms. We decided that would be the start. The second part is a pharmacopeia-like, so that we started originally with classes of agents, but as we had more and more agents within a class, we started to try to dedicate, for many of the drugs, a separate chapter. Because clinicians were using these drugs, they needed to know more about it, there were some subtleties between the drugs, we wanted to make sure we covered, and so we started this pharmacopeia-like.

#### Dr. Alan Schatzberg (06:19):

Now, why, within that pharmacopeia-like section, which is very extensive, we had a structure, was we needed to have a similarity of form across the chapters. It's very disconcerting to open a book where each chapter is written in a very different style. You can't force people to write in a style, in terms of the

English they use, but you can in fact homogenize the structure so that it makes it easier for the reader to go from one chapter to another, to look up a difference in a structure of a compound or a history of a compound or whatever. We decided that that would provide a structure for all the writers, and that would make it easier for a practitioner or a student or a resident or a fellow to try to understand the pharmacology and the subtle differences.

# Dr. Laura Roberts (07:14):

Yeah, I do think it's a beautiful feature of the book. And then the third section?

#### Dr. Alan Schatzberg (07:19):

Well, the third section, once you know about drugs and the difference, there's quite a gap between the science and the art, if you will, and the science of the art. We needed to really put a perspective, to provide a perspective for the reader. That perspective is, how does an experienced person review the literature and provide their own insights about the treatment of a particular disorder? There'll be a section on depression, a section on bipolar illness, on aspects of neuropsychiatry, on psychosis, schizophrenia, et cetera. And that then allows the reader to understand how a particular drug, let's say clozapine, which is used for refractory psychotic disorders or schizophrenia, how that could be used by a particular practitioner.

### Dr. Alan Schatzberg (08:15):

Now, until this last edition, we had a fourth section, which we no longer have, and we cut it, because the number of pages and chapters were growing exponentially as there's more psychopharmacology, and if you want to maintain a structure that makes sense for the reader. And so we did have a section on what we know about the biology of each of the groups of disorders. There was a biology of depression chapter, a biology of schizophrenia chapter. Unfortunately, the information in those chapters also continued to grow, and that became then very difficult to include. In terms of space and sizing of the textbook, we dropped that section, but maintained the other sections, which I think are really the key to providing psychopharmacology at large.

#### Dr. Laura Roberts (09:11):

Great. It does remind me, you've done other books for the American Psychiatric Association Publishing Group, including the Textbook of Mood Disorders.

# Dr. Alan Schatzberg (09:19):

Textbook of Mood Disorders is a very interesting book and has a number of chapters, where we go from the basic biology of mood disorders through treatment, through drugs, et cetera. The Press, I think, has been incredibly successful and a real plus for the field and for the American Psychiatric Association. It's the largest publisher of psychiatric or mental health books in the world. It has had distinguished editors in chief, including yourself. It has had distinguished editorial boards, and it's been able to publish numerous texts that have really been adopted very widely by all sorts of folks from different levels, whether it be medical students, residents, fellows, practitioners, et cetera. I've been very, very fortunate to be involved with The Press for the last 30-plus years. It's been great for me.

Dr. Laura Roberts (10:27):

Yeah, well, The Press has been lucky and fortunate to have your contributions. I wanted you to read this initial paragraph of the introduction to the textbook.

# Dr. Alan Schatzberg (10:38):

Sure. This is from the textbook, and it says, "Psychopharmacology has developed as a medical discipline over approximately the past five decades. The discoveries of the early effective antidepressants, antipsychotics and mood stabilizes, were invariably based on serendipitous observations. The repeated demonstration of efficacy of these agents then served as an impetus for considerable research into the neurobiological bases of their therapeutic effects and of a motion and cognition themselves, as well as the biological bases of the major psychiatric disorders.

# Dr. Laura Roberts (11:21):

I think it's really an intriguing observation that seeing that medications work then gives us information about the underlying conditions, or a little bit about mechanisms of action of these medications, but it is starting the cart before the horse, it seems.

# Dr. Alan Schatzberg (11:37):

Well, that's historic. If you go back to the development of the first antidepressants, the tricyclics like imipramine or amitriptyline, the monoamine oxidase inhibitors, they were shown serendipitously to work. Tricyclics, imipramine was shown to work in a study of schizophrenia. It was a three-ring structure, like a phenothiazine, but unlike the phenothiazines, did not have a sulfur in the central ring. And Coone, doing a study for [inaudible 00:12:09], and Bozel, noticed that in fact, it was an effective antidepressant. Before that, we didn't have effective oral antidepressants.

#### Dr. Alan Schatzberg (12:18):

Similarly, George Crane, looking at a monoamine oxidase inhibitor for the treatment of tuberculosis, found that it wasn't very good as an anti-tubercular, but it was effective as an antidepressant. Then you had two classes of drugs potentially, and then as people started to study how those drugs work, they noticed that they had profound effects on monoamines, particularly catacholamines, norepinephrine, but also indolamines, such as serotonin. That led then, with other observations on depleting monoamines, by an antihypertensive called reserpine, that in fact led to the development of depression in individuals at risk. We had drugs that increased monoaminergic tone that were antidepressant, we had drugs that caused depletion that seemed to be depression organic, and then people started to put these together and say, "Hey, maybe monoamine dysfunction was involved in the pathophysiology, pathogenesis of mood disorders, particularly depression."

# Dr. Alan Schatzberg (13:31):

That kind of intuitive observation was called the psychopharmacologic bridge. It was a bridge from psychopharmacology back to etiology. And it's led to a lot of research. We didn't really come up with great genetic markers due to those hypotheses, but they were important for trying to begin to study the biology of depression of the disorders. But it's called a psychopharmacologic bridge, and people need to understand that; how do we get into this kind of thing? Because in psychiatry, we're dealing with the most complex organ, and one that we can't really access. We can't biopsy the brain, we don't get a chance to do direct imaging, we can do non-invasive imaging, and so we have real limitations in terms of understanding the biology of a disorder or understanding what a drug does.

#### Dr. Alan Schatzberg (14:41):

But many people have pointed out that just because a drug works in a certain way does not necessarily mean that it explains the etiology. There are good examples of that. For example, diuretics for hypertension, hypertension is not due to retaining fluid. Getting rid of fluid is good for people in heart failure, people who have hypertension, but there's an underlying pathology that causes the hypertension. A lot of times, nothing really, but there is. And so you can't just infer from a drug effect as to a pathophysiology, but it is important in a way of generating... I think it's of heuristic value for trying to understand the consequences and the causes of these disorders.

# Dr. Laura Roberts (<u>15:30</u>):

Yeah, great, thank you. You're listening to Psychiatry Unbound, APA Publishing Books Podcast. We'll be back in a minute. How did you get so interested in psychopharmacology and psychiatry and medicine? Tell us a little bit more about you.

#### Dr. Alan Schatzberg (15:57):

Now, how did I get into psychopharmacology? Well, I started out at Mass Mental Health Center, which was the main Harvard teaching program at the time, and it was heavily psychoanalytic, but I was always curious about these drugs and how they may work. And then I was in the military for two years and then I went, from there, I went back to Boston and I was at McClean Hospital. And at McClean Hospital, I started working with Joe Schildkraut, who was at the Mass Mental Health Center, who was the founder of the Catecholamine Hypothesis of Depression, and he got me interested in depression research, but also Jonathan Cole. And Jonathan Cole had come to McClean just shortly after I did. He was about 20 years older than I, and he was a incredible psychopharmacologist who had been head of the psychopharmacology branch of the National Institute of Mental Health.

# Dr. Alan Schatzberg (16:56):

He was encyclopedic, he was a person who had done lots of clinical trials, he was a very good clinician, and he really got me into psychopharmacology. And he, for the first, maybe four or five editions of our manual, or maybe even six, was a co-author on our Manual of Clinical Psychopharmacology. He was a gifted, gifted clinician, encyclopedic and brilliant academic. He passed away about maybe eight, 10 years ago, and he was a professor of psychiatry at Harvard Medical School, as was Joe Schildkraut, and those two were mentors of mine. One, more of a basic biological researcher, the other a clinical investigator. And through them, I got into psychopharmacology.

#### Dr. Alan Schatzberg (17:48):

It was with Cole that we did the first editions of our manual, and he was a terrific writer and he was a terrific communicator. And so we've written those books, really to help the practitioner understand how to practice. And at the time, when we started, it was a time when a lot of people were not fully comfortable with psychopharmacology. A lot of people still were trained mainly in the psychosocial, psychoanalytic perspective. And so the book, I think, helped people make a transition to be able to practice.

# Dr. Laura Roberts (<u>18:22</u>):

Yeah, that's great. You've talked a little bit about the history of psychopharmacology. What do you think is happening now, in terms of the future?

#### Dr. Alan Schatzberg (18:33):

Well, I think the future is mixed. Near term. Near term, I think it's mixed. I think what we've seen with the development of psychopharmacologic agents has been the approval of drugs that are small extensions of existing compounds, in terms of their scope of action, their uses or whatever. We have not seen really large breakthroughs. We have a couple things coming that are very interesting. A lot of interest in esketamine or ketamine, which has some very intriguing properties, but we have not seen the big leap. The drugs have been small, but incremental advances. We need to get some big leaps. How will they happen? Well, one thought is they'll happen through understanding the genetics of the disorders better.

# Dr. Alan Schatzberg (19:43):

That's difficult, because many of our common disorders have what we call complex genetics, they're heterogeneous, they have lots of genes where variants account for very small amounts of the contribution to the risk. But eventually, probably, there will be some breakthrough observations that will then lead to very, very different compounds. That's the hope. That's the hope. We're not there yet. We're making progress on trying to get some genetic studies and other biological studies. But that movement continues, but we would've hoped that we would've had better and better agents, more agents or whatever, than we have. The other problem we have in psychiatry is that we don't have endpoints that are solid. If you were developing a drug for diabetes, you would be developing a drug that would be associated with taking a patient with a blood sugar of 140, 150 or whatever, and putting it into the normal range, let's say 90, and the delta of the reduction in the fasting blood sugar would be your target.

# Dr. Alan Schatzberg (20:59):

Similarly, for hypertension, it's the reduction in, let's say, supine blood pressure. For us, it's the improvement in mood. Highly subjective on the patient's part, and subjective on the rater's part. And that softness has created problems, because associated with that is a nonspecific effect of being nice to the patient, the patient coming in, et cetera. Often what we call the placebo effect, because you see that even when the patient's on placebo, and that then causes a narrowing of the difference between active drug and placebo. And when drugs don't separate, they don't get approved. And so we are fighting against that. We're fighting against other things in drug trial, but that's where we're fighting and that makes it difficult. If we're going to see drugs, they're going to be powerful drugs. They're going to be powerful drugs that's going to overcome the non-specific effects of giving patients a tablet, even a placebo tablet.

### Dr. Laura Roberts (22:02):

There has been a fair amount of controversy around psychopharmacologic intervention with people with mood disorders and other psychiatric conditions. What advice would you have for patients who are struggling with the question of whether to try medication for something that, oh, they might think is a personal failing, or is a phase of life issue or a type of reaction to their life circumstances? How do they think through the recommendation of their doctor to start a medication?

### Dr. Alan Schatzberg (22:33):

Well, first they select a doctor who's knowledgeable, whom they like, who communicates well, et cetera. Having said that, in general, as a rule of thumb, the more severe the disorder, the more likely the patient is to need a pharmacologic agent. You see this particularly in depression. Mild depression can

often be handled through psychosocial treatment, psychotherapy, maybe even exercise or something like that, but the more severely ill person, that is they're incapacitated, they're unable to work, unable to concentrate, they may have thoughts of self destruction, those may be helped by psychotherapy, but the odds are that the medication will do better.

### Dr. Alan Schatzberg (23:21):

Medications, in general, do better in the more severely ill patients, psychotherapies do better in the milder, less severely ill patients. That's a very good rule of thumb. Now, how do you know if you're mild or not? Well, you can ask a treater and they can give you a sense of it. They've seen other patients, but for the patient themselves, they don't really know frequently, is this the way it's supposed to be? right? As you kind of implied in your question, you see this in response to various stressors. Depression is commonly seen after losses, disappointments, sense of failure, and they happen quite commonly. In fact, some people say untoward stress or untoward stress reactions may be what depression is and there's some evidence for that. It's when the organism, either in a basic research study or in a higher organism, such as a human, continues to have symptoms that do not go away, they last a long time, they're severe and they lead to a loss of functioning, where they're impaired in being able to concentrate, to talk, to interact, to have pleasure, that you really are more likely to need to take a medication.

### Dr. Alan Schatzberg (24:59):

Short term, for example, in bereavement; in bereavement, it's common for people to feel depressed for a while. It's less common for them to not be able to work after four weeks. Most people go back to work. They're not happy, but in the individuals who cannot function and they've been that way for three months, likely they're going to need treatment, medication. They may need medication or maybe therapy, but they're probably going to need treatment. It's the persistence and the severity and the impairment that drive the decisions.

# Dr. Laura Roberts (25:38):

Good. Thank you. That was it, from my point of view. Did you have anything that you wanted to be able to say to the audience?

# Dr. Alan Schatzberg (25:50):

The fifth edition of the textbook has several things, I think, that are very interesting, that fit in with other textbooks of the American Psychiatric Association Publishing group. One is that these most recent textbooks, all have been coordinated with the DSM-5. That's important, because there are subtle differences amongst the DSMs, and to try to bring the pharmacopeia and the pharmacologic approach up to date with the DSM-5, I think, is helpful for treaters and for patients. The formats have been changed. The previous editions of the textbook were much wider and bigger. In fact, I think the fourth edition got to a point where you needed a wheelbarrow to be able to carry around the textbook. What The Press then did was, in terms of the height of these books, to put them into a format that's very similar to the DSM-5, so that they become a manageable size.

### Dr. Alan Schatzberg (26:56):

That was another reason, for when we did this last edition, we needed to cut down, because the size is smaller, even though the number of pages is somewhat similar, we needed to cut down on some of the content. We dropped the biological perspectives, but we also started to edit down the text to make that

more usable too. And what you're finding in the modern times of textbooks is people want a little less, not a lot more. That the encyclopedic textbooks that you can't... Are so, so large, become almost too daunting. This puts it into a much more usable size, and it's, I think, in the modern era of the second decade or the 21st century, I think it fits where we are. We hope the people who are listening who and hope who buy the book, or use it in psych online, really get a lot of use and pleasure from it. We've enjoyed doing these and we hope to do editions in the future.

#### Dr. Laura Roberts (28:11):

Thank you. Perfect. We're going to take a little break now, and when we come back we'll speak with Christopher Bartley, MD PhD. Christopher is a resident and research fellow in the Department of Psychiatry at the University of California, San Francisco.

### Dr. Laura Roberts (28:55):

Dr. Bartley recently read the APA's Textbook of Psychopharmacology, put together by Dr. Alan Schatzberg and Dr. Charlie Nemeroff. Dr. Bartley has generously agreed to talk with us about his impressions of the book. Dr. Bartley, welcome to the APA Books Podcast.

# Dr. Christopher Bartley (29:12):

Thank you. Really happy to be here.

# Dr. Laura Roberts (29:14):

Yeah. Given your background and the kind of work that you do, how do you think this textbook will prove to be useful to you?

# Dr. Christopher Bartley (29:22):

Yeah, well, as you mentioned, I'm a resident in training. I'm a third year resident, here at UCSF, and at the beginning of your training, I think you learn what psychiatry is, and there are great textbooks for that. Kaplan and Sadock really give you some foundational knowledge in psychiatry and some of the basics, but as I've progressed to third year, I've become a little bit more independent and the question is more like, now how do I practice psychiatry, now that I'm a much more independently practicing psychiatrist with a little bit less attending supervision?

#### Dr. Christopher Bartley (29:57):

I've just found this textbook to be really helpful, in terms of giving me some context from which to make my decisions about treatment for patients. One of the things I actually really like about this book is that it not only covers psychopharmacological interventions, but also interventional interventions as well, such as TMS and ECT. Oftentimes, I'm confronted with the question of, "Well, we've gone through a number of medications, a number of different classes for this patient, and nothing seems to have worked. What other options are out there?" And this book is a nice introduction to some alternative treatments.

#### Dr. Laura Roberts (30:35):

That's great. Good. I don't know if you have developed a philosophy of treating patients, but have you arrived at an approach or a philosophy of the care of the patient in psychiatry?

# Dr. Christopher Bartley (30:50):

Yeah, I think that's something that's developing. I think your philosophy develops over time through experiences and through whatever belief systems you bring to the table. For me, one of the things I really like about psychiatry is it always has a stance of respect towards the patient. And respecting these individuals, who society sometimes may wish to ignore, because the problems are a little bit uncomfortable, the problems sometimes can be a little bit unsightly, and so I think as a part of that respect, curiosity is a huge component of that, so really trying to listen to the patient's story and how they describe their experience of their symptoms and their experience of the world.

# Dr. Christopher Bartley (31:39):

And psychiatry has a rich history, in terms of really listening to the patients and being very observant, and I think that's allowed us to come up with some great conceptual models for how certain psychiatric illnesses and psychiatric symptoms emerge over time. Obviously, there's a rich history within the psychodynamic field and work, and I am a little bit more of a biologist. And so I'm interested in hearing what the patient is saying and figuring out how I can map that onto certain brain processes that I feel a little bit more comfortable thinking through. Psychopharmacology is something that I think about quite a bit, because I personally enjoy thinking about receptors. I personally enjoy thinking about circuits. I personally enjoy thinking about the molecules that may be involved in the expressions of these diseases.

# Dr. Christopher Bartley (32:35):

I think a stance of respect, a stance of curiosity, and then trying to be somewhat systematic about, to the degree possible, bending the symptoms that the patient is providing me with, and the observations that I'm making, into some hierarchy of a differential diagnosis, if you will. That drives the initial approach that I'd like to take towards treatment and helps me to prioritize what's first, what's second, what's third? As part of that, and as part of listening to the patient, a lot of our medications have some unsavory side effects. And so part of that initial conversation with a patient about medications is really trying to understand their value systems, and that can help to guide pharmacological treatment as well.

#### Dr. Laura Roberts (33:33):

When you sit with a patient who has bravely come to see a psychiatrist, is feeling unsettled by their experiences, has probably gone through a great deal of hardship before walking in the door to talk with you, and they're very afraid of taking medication, how do you think about that with them and how do you speak with them about that?

#### Dr. Christopher Bartley (33:55):

Yeah, I first try to really get in the space that they're in and try to understand the journey that they've gone through to come to my office. And oftentimes, that's an act of courage in itself, to reach out for help. Not just in psychiatry, but in any medical specialty, but particularly in psychiatry. Oftentimes, I'll have an open conversation where I'm not trying to push a medication on them. They may not be ready for one. This is a collaborative effort and we know that the relationship between the provider and the patient is paramount. If they don't trust me, they're not going to take the medication that I prescribe, and so really trying to establish the relationship is important. I think as part of that, I want to speak to their specific fears, and that's where the curiosity comes in again.

# Dr. Christopher Bartley (34:48):

And what are their concerns about the medication? Sometimes the concern is not that they're going to have side effects, but just that they've tried so much and they don't think any medication is really going to work, so why should they try another medication? I think that's where having a bit of knowledge about the medications and the data, for certain people, can be reassuring, because you can offer them a bit of hope and you can tell them, "Listen, there's literature out there that says that there are other people like you that have come in the same situation, and there are more treatments. I know that you've tried a lot, but there are other treatments." And if something doesn't work or something gives you side effects, we can always stop it.

#### Dr. Laura Roberts (35:24):

One of the concerns I have, in the practice of psychiatry right now, is that it's really a very narrow set of medications that psychiatrists are comfortable using. One of the things that I hope the textbook can help is reminding people that there are classes of medications that could be tried in the care of really treatment refractory diseases and conditions.

# Dr. Christopher Bartley (35:50):

Yeah, I absolutely agree with that. I think in modern psychiatric training, the tricyclic acids or compounds that we oftentimes would shy away from; these were thought of as dirty drugs. They hit a lot of receptors, they have a lot of anticholinergic side effects and other side effects, and because of that, they're typically not our first line. We're starting to see a generational shift, that as people stop using those medications, younger generations aren't going to be familiar or comfortable with those medications. We know that the early data indicates that, I think in the early studies, they found that inpatients who were hospitalized with severe depression had a very robust response rate to tricyclic acids, upwards of 70%, which is much higher than the 45 to 50% response rate that we see with classical SSRIs or SNRIs.

#### Dr. Christopher Bartley (36:42):

The chapter on TCAs was actually written by Dr. Craig Nelson, who's my attending here in the Neuropsychiatry Clinic, so it's been wonderful to talk to him about his thoughts about the classes and medications. But yeah, I find that this book has given me a really nice overview of certain classes of medications that are currently neglected, has given me a way to think about when it's appropriate to use those medications, and it's also really taken the label off, the label that this whole class of medications is bad, and has really given me a more nuanced view about the side effect profile of different medications within that class. And some of them have a much sort lower side effect profile and could be tried first, and other ones are perhaps a little bit dirtier. I'm glad that this book actually gave a platform to some of the medications that I think in our psychiatric training are often neglected.

### Dr. Laura Roberts (37:41):

Yeah, that's great. And when you think about the future of psychiatry, do you have thoughts about where we're headed?

# Dr. Christopher Bartley (37:50):

I think it's hard to know where we're headed, but everybody's excited. I think there have been periods of excitement in the past, in psychiatry. I think in the 1980s there was a biological way of looking at cortisol and other biomarkers. I think we're seeing the second biological push, and I think that one thing that's very true is we have more ways of interrogating the brain and measuring brain function and

behavioral function than we ever have before. I think what we're going to see is increasing integration of these different modalities of assessment, from MRI to EEG to pharmacogenomics. I think all of that is going to integrate to give us a more nuanced view of these individuals.

# Dr. Christopher Bartley (38:41):

One thing that's really nice is that I don't think that this technological Cambrian period, if you will, will necessarily push psychotherapy or psychodynamic treatments to the background. I think actually what we're seeing is that there's a lot of paired studies where they're looking at the effect of psychotherapy on brain function. And what we've always known is that we're brain doctors, just like the neurologists, but there's been a split between our two fields. I think that once again, we're rediscovering that we're brain doctors and our interventions, whether they're psychotherapeutic or pharmacological or interventional, these interventions actually affect how the brain functions and we have ways of measuring that.

### Speaker 4 (39:32):

Our host is Dr. Laura Roberts. She is the Katharine Dexter McCormick and Stanley McCormick Memorial Professor and Chairman of the Department of Psychiatry and Behavioral Sciences at the Stanford University School of Medicine. She is also Editor-in-Chief of the Books Program at American Psychiatric Association Publishing. Alan F. Schatzberg, MD, is the Kenneth T. Norris Jr. Professor in the Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine in Stanford, California. Christopher M. Bartley MD, PhD, is the Chief Resident for Education in the Department of Psychiatry at the University of California, San Francisco.

#### Speaker 4 (40:16):

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