

Foreword

BY JULIE MCINTYRE, CLINICAL HERBALIST

Lyme disease is a pathogen of sophisticated stealthiness, meaning the spirochete bacteria that causes Lyme disease is able to sequester itself inside host cells to avoid the immune system's detection. These bacteria affect a variety of body organs, tissues, cells, and glands. The symptoms they create in the body have led to calling Lyme disease the "great imitator" for it mimics MS, fibromyalgia, chronic fatigue syndrome, Parkinson's, Alzheimer's, heart disease, irritable bowel syndrome, metabolic diseases and psychotic episodes.

Because of the stealth nature and intelligence of the organisms, we necessarily must approach healing Lyme disease using treatments that are not common in the way we have been taught to think about treating bacterial infections. (I mean, it's just a *bacterium*.) The world is not the same as it was when penicillin was developed. We now see the effects of the mistakes that were made then with overuse of antibiotics and the resultant

antibiotic resistant bacteria. Many of those mistakes were due to hubris.

What we know now is that bacteria are extremely intelligent and adaptable. They communicate with each other over long distances sharing information about antibiotic resistance (a phenomenon known as “quorum sensing”). They seem always to be one step ahead of research. The fact that microbes can bring us to our knees and humble us in ways we dare not imagine in our healthiest moments ought to be the end of thinking we are the smartest species at the top of the food chain. If you doubt this, recall the last time you had strep throat, the flu or a urinary tract infection.

Bacteria are the oldest forms of life on Earth; three billion years old. They have survived because of their level of intelligence and adaptability. They have learned to alter their structures and respond to substances they come in contact with and rather quickly.

They have a variety of structures called efflux pumps that act as a type of sump pump. When a substance assaults the cell membrane the bacteria essentially pumps it back out. But it is not random. Bacteria have created a wide range of pump types to protect themselves from all manner of antimicrobial substances.

What makes plant medicines (herbal antibiotics) elegantly effective agents to treat antibiotic resistant bacteria is that plants, in order to survive, are in a constant state of analyzing their environment and altering their chemical compounds to address threats to their health whether it is bacterial, viral or insect. Essentially, they are their own physicians. Not only do plant medicines have antibacterial actions, they have complex chemical constituents making them multi-system agents of

healing. Cannabis is a perfect example. It has over 700 broadly active constituents making it an intelligent choice for reducing inflammation, relieving pain, alleviating insomnia and soothing anxiety.

Humans, and many other species, are hard wired with an endocannabinoid system throughout the brain and body thus making the use of marijuana a logical and intelligent choice of medicine. The endocannabinoid system is composed of neuromodulatory lipids and their receptors. Unique to the cannabis plant alone are cannabinoids, specific constituents that bind to the body's endocannabinoid receptors, and as Shelley notes in this book, "... regulate physiological processes such as appetite, pain interpretation, memory, and mood." Cannabinoids modulate the release of neurotransmitters such as GABA, 5HTP, glutamate, acetylcholine, noradrenalin, and dopamine from a number of central nervous system structures.

Parents desperate for options to help their children often find that medical marijuana is the key to giving their children with seizure disorders a chance at a normal life. There is a desperation and fierceness in people who themselves (or their children) have a symptom picture that is debilitating. Weeks and years of insomnia or epilepsy can cause one to not care about laws banning the use of a natural substance that could bring sleep or relief. Those suffering from the symptoms of Lyme disease often find tremendous relief from using cannabis, dramatically reducing temporal lobe seizures as well as insomnia, neuropathic pain, lack of appetite, joint pain, and muscular pain.

Nevertheless, this tremendously effective medicine has suffered decades of prohibition. Until 1998 when California became the first state to legalize marijuana for medical use. Slowly, but with increasing regularity, the herb is seeing more acceptance.

Sanjay Gupta, M.D., CNN's Chief Medical Correspondent, for example, has publicly announced his backing of marijuana for medical use years after he made a blanket statement condemning it. Gupta has since apologized for his statements saying he didn't look hard enough or far enough, nor did he look at the research coming out of the smaller labs.

I mistakenly believed the Drug Enforcement Agency listed marijuana as a schedule 1 substance based on sound scientific proof. Surely, they must have quality reasoning as to why marijuana is in the category of the most dangerous drugs that have "no accepted medical use and a high potential for abuse."

They didn't have the science to support that claim, and I now know that when it comes to marijuana neither of those things are true. It doesn't have a high potential for abuse, and there are very legitimate medical applications. In fact, sometimes marijuana is the only thing that works.

He goes on to say,

We have been terribly and systematically misled for nearly 70 years in the United States, and I apologize for my own role in that.^A

I take hope in this rare, intelligent, even socially unacceptable, conversion regarding the decriminalization and legalization of marijuana. As well as the growing number of states making medical marijuana legal. Simply, the reality that CBD oil from hemp that is legal in every state (and orderable through the internet) gives rise to hope and the potential for marijuana to become widely and easily available. Marijuana has a legitimate place in the materia medica and pharmacopoeia as a real and viable herbal remedy.

As a society we have a responsibility to those who are ill to make every possible avenue to healing available to them. Anything less is cruelty. Unfortunately, the deplorable situation with cannabis acceptance is all too often mirrored in medical and societal approaches to Lyme disease.

As a clinical herbalist I hear or read stories every day from my clients that cause me to shake my head in shame of our Western, industrial, first world medical system. I'm outraged on behalf of my clients for the humiliation, lack of care and lack of time devoted to their patient needs. Every week if not every day I hear stories of physicians denying that Lyme disease exists in their state or they blame the patient for "faking symptoms" to get attention, or they refer their patients for psychiatric counseling. The stories are endless and horrific in the ramifications they have on people trying to find help in the midst of devastating illness and debilitating pain. In a research abstract entitled *Bullying Borrelia: when the culture of science is under attack*, the authors state the following:

Although Lyme disease responds to short courses of antibiotics, tick-borne Borrelia Burgdorferi has been advanced by some as a frequent explanation for medically unexplained symptoms... Perhaps due to the lack of supportive data, proponents of this theory have developed their own meetings, literature, activist groups, and substantial internet activities to advance their views ... While neither logical nor evidence-based, 'chronic Lyme disease' harnesses corrosive energies that taint modern medicine and society.^B

Many researchers and clinicians find such statements to be unscientific and counterproductive. For example, Christian Perronne, MD, PhD, is a Professor of Infectious and Tropical Diseases at the Faculty of Medicine Ile-de-France Ouest, and President of the

French Federation of Infectiology (FFI). He is also Vice-President of the European Advisory Group of Experts on Immunization at the World Health Organization, and is the author or co-author of 218 scientific publications.

In the May, 2012 edition of *The Lancet Infectious Diseases* (volume 12), Dr. Perronne made the following statements (reprinted with permission):

Paul Auwaerter and colleagues compare some Lyme disease activists who use non-evidence-based arguments with anti-HIV or antivaccination extremists. Their Personal View shows that unscientific thinking and malpractice occur in many specialties. Such a focus has unfortunately resulted in suppression of legitimate and necessary scientific debate about the management of syndromes of unclear aetiology, which sometimes occur after a previously proven episode of Lyme disease or tick bites. Public health recommendations should rely on strong evidence-based data and not on expert opinion, as Lee and Vielmeyer's review of the Infectious Disease Society of America guidelines shows is the case with Lyme disease.

Recommended serological tests for Lyme disease vary greatly in sensitivity. Since no reliable reference standard exists—such as a specific clinical score, culture, or PCR—the cut-off levels of such tests are decided with healthy donors and calculated arbitrarily. Several studies have shown that seronegative Lyme disease cases can be proved with culture or PCR. Seronegative patients have been included as Lyme disease cases in a major clinical trial.

*Another difficulty is that, although many variants and new species of *Borrelia* are regularly discovered, most*

commercial tests rely on the original Massachusetts B31 isolate of Borrelia burgdorferi, used since 1982. However, Scottish experts were able to improve the sensitivity of their tests with local strains of Borrelia spp. In Brazil, a Lyme-like syndrome has also been described that is due to a non-cultivable spirochete—not a Borrelia species—and is therefore undetected by current serological tests.

Additionally, peer-reviewed studies show that other bacterial, viral, or parasitic infections might contribute to syndromes associated with Lyme disease or its mimics. Microbial involvement is being actively investigated in other well known but poorly understood conditions. For example, the possible role of spirochetes, including B. burgdorferi, has become the subject of research into the pathophysiology of Alzheimer’s disease.

Syndromes without a clear cause or objective evidence should no longer be called chronic Lyme disease. These syndromes are probably caused by several factors; therefore, both infectious and non-infectious aetiologies should be considered. To limit the debate to Lyme disease alone is highly unproductive, because this disease is unlikely to be the universal explanation of our patients’ persisting ailments. These syndromes with possible microbial involvement should be investigated with the best available tests and with a fresh and open-minded scientific approach.^c

There are the few and rare physicians who care enough and are brave enough to think outside the box of their allopathic training and treatment limitations for alternative options and hope, often risking their license to do so. One of the things they have in common is that they *listen* to their patients.

I have felt from my earliest days of treating people with Lyme disease and related conditions that my clients are my greatest teachers. They are the best researched, most intelligent, brave and tenacious group of people I have ever worked with.

They keep me humble. They have their pulse on the latest research, latest treatments, and newest practitioners. They think and live outside normal boundaries of thinking and living. People who are chronically ill, afraid, desperate for help and feel alone are willing to try about anything if there is a chance it will help them regain health. Coming from this pool of people, innovating on medicines and out-of-the-box treatments, we find the healing properties and symptom-reducing actions of medical marijuana.

Many people with Lyme disease first begin by looking for treatments inside the allopathic community. They find sooner or later, (and often after spending tens of thousands of dollars on antibiotic treatment) that the old ways of treating bacterial infections are not working; that healing inside the established system does not work for a very large segment of the Lyme community. That system is, unfortunately, wrought with archaic beliefs and limited treatment options. Those who work within the system are finding that they themselves are limited, not only by the resources available to them, but also by the constraints of their licensure requirements, and most importantly, by their training, which has limited them to see only what they have been trained to see. One of these limits is their rather archaic view of plant medicines.

Plant medicines have complex chemical constituents that can sophisticatedly modulate our body's physical, chemical and electrical systems. They help our bodies remember how to be well. And they often open us up to other views of reality. This way of

seeing and the alterations plants cause in our awareness are part of the reasons marijuana has been illegal for seventy years.

My own personal journey is, I suppose, not all that different than many Lyme patients and medical physicians.

In 1982 Lyme disease was far removed from my daily thoughts, as it still was to the news reports and in personal conversations. I remember hearing rumblings of Lyme disease later in that decade; still there was a feeling of immunity in those of us who heard rumors of it. It was not as if any of us could catch it.

Lyme only began to become real to me while enrolled in an EMT training course. One of the required classes was “How to keep oneself safe while out on an ambulance call.” The woman teaching the class was passionately and skillfully telling a story of first responders and paramedics becoming infected with Lyme disease while responding to car accidents and roll-overs in grassy ditches. I stopped breathing and moving while the horror of the symptom description, and the rapidly declining health and functionality of those who had become infected, washed through my brain like a tsunami. In that instant the world became a much smaller place for me.

I didn't know then that my destiny was already pulling me along, insisting I take my place in the midst of one of the fastest growing bacterial epidemics of the modern era.

The instructor painted a graphic picture for me and the years since have filled in the picture considerably. I have now heard thousands of stories of Lyme disease...from the initial bite, to years and decades of declining health, debilitating symptoms, and unsuccessful attempts at getting an accurate diagnosis and effective treatment. Distressingly, after years of increasing symptoms, insomnia, psychosis and pain, many people suffering

from Lyme disease find they must endure further suffering in the form of ridicule, abandonment, and financial devastation. They lose friends, marriages and homes.

People with Lyme disease, and/or coinfections, are some of the bravest people I have met. Many of them have traveled alone into the darkness of the illness and in the process, ultimately, found others like themselves. Whole communities have grown up around Lyme disease that address the illness, symptoms, protocols, experiences with physicians and alternative practitioners and treatments. This is a demographic of the world population that is willing to think outside of the box primarily because their experiences inside the rules of conduct of seeking medical help have not served them and in many instances caused damage despite the medical dictum: *First, do no harm.*

Once one has walked the arduous, terrifying and lonely journey a chronic illness is, the person emerging from the tangled forest of illness is not the same as the one who entered. Chronic illness has a function and that is to change us.

Once we have had the experience of a plant saving our life we are never the same again. The fact of a plant or plants saving our lives, alleviating our suffering, raising our spirit and level of hope changes our beliefs about reality and what we have been told. We have been forced by circumstances and events to re-examine our beliefs and ideas about how the world is made up. We question what we thought was reality, the rules we were told to obey and the authorities who wrote them.

All throughout life, people adapt and make concessions to fit into the world of work and productivity, the choices of which cause disturbing ripples in the soul. More often than not, in the midst of an illness crisis when one is most vulnerable, newer insight into the life being lived occurs. Many begin to follow the inclinations

of long ago childhood dreams. They remember they've always wanted to become a dancer, pianist, writer. Sometimes the dream that emerges is to become an herbalist.

These are those who experienced plants healing them by bringing strength back to limbs that began to fail, sleep for the first time in years, or improved memory and an end to Lyme induced psychosis. Sometimes the healing that occurs stops what the person was doing and rekindles the fires of what they were meant to be all along. And there are many who found themselves about to fall off the edge into the abyss when unexpectedly, wild green tendrils reached out to clasp their wrist. They were pulled back to solid ground, giving them courage and endurance to face another day.

In the pages of this book you'll find easy-to-read scientific research on the mechanisms and actions of medical marijuana and how these constituents affect individual symptoms of Lyme disease. The bookends holding together and supporting the scientific research are composed of the story of one woman's journey, of her life being turned inside out from a debilitating disease and her discovery of the plant that healed her. In the midst of illness and her discovery of the plant that companioned her, she found herself. Ultimately, each of us must find our own truth, our own path of healing. I pray that we each have the freedom to do just that. Shelley's book is a welcome and needed addition to that freedom.

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References

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- C. Reprinted from *The Lancet Infectious Diseases*, Volume 12, Christian Perronne, Lyme disease antiscience, pages 361-362, 2012, with permission from Elsevier / The Lancet.