CHAPTER 4

UNDERSTANDING HOST TREES

Best Practices in Choosing Mistletoe Therapies

Dr. Peter Hinderberger, MD

Special thanks to Dr. Steven Johnson of Collaborative Medical Arts (Chatham, NY) for summary material included in this chapter

"Do not get so taken up by the cancerous condition that you forget the most essential part of your treatment—the general condition."—DR. ELI JONES (1850–1933)

Mistletoe is an eye-catching presence in a winter forest. Deciduous trees, like oak or birch, have no leaves in wintertime, so mistletoe plants appear as vibrant green orbs hanging among the bare branches. Each of those mistletoe plants has a single *sinker root* tapped into and drawing nourishment from its host tree. European mistletoe is technically a parasite, but it doesn't destroy its host. Rather, *Viscum album* has a relatively benign impact on its host. In contrast, the impact of the host tree on the mistletoe plant is significant.

Through multiple lab studies, we now know that mistletoe takes on some qualities of its host. Whether it grows in pine or fir or a variety of deciduous trees, the specific host tree species influences the phytochemical composition of the mistletoe plant.[1,2] That, in turn, affects the composition of each mistletoe extract. The gesture of the host tree

is conveyed into the specific *Viscum album* extract (VAE). In this chapter, we'll learn how host trees influence VAE composition and how to choose the right extract for the right patient and for specific cancers. Through this exploration we'll begin to better understand why mistletoe is most effective when administered with a whole person anthroposophic approach.

Why host trees matter

Researchers have identified just over 80 confirmed species of mistletoe,[3] but only *Viscum album*, European mistletoe, is used in VAE therapy. *Viscum album* can grow in more than 450 known host tree and shrub species,[4] and we've learned that the individual host species does affect the composition of each mistletoe plant. Fourteen host tree varieties (two coniferous, twelve deciduous) are harvested for the VAE products that are available to U.S. practitioners. Rudolf Steiner suggested that the benefits of VAE therapy could be significantly increased by mindfully choosing the right host tree and the appropriate homeopathic metal to administer alongside it (see chapter 8). It is crucial to match the right host tree to the individual patient, their constitution, past and present spiritual patterns, and hopes and goals. The right host tree will mesh harmoniously with the person's immune system and their life forces (or *etheric body*, see chapters 6 and 7).[5,6]

The host tree species directly influences the phytochemical content and ratios in the final VAE extract. Other factors result in additional extract variations between manufacturers. The bioactive substances in the leaves and berries will vary from winter to summer, and processing methods also affect the composition of the final extract. Phytochemical actives vary depending on what time of year the plant is harvested, where the host trees are grown, the climate and soil of that region, and the proprietary processing methods of each manufacturer including mixing, temperature, and fermentation technique.

Because manufacturers have unique processing techniques, not only do lectin concentrations (see chapter 2) vary between host tree origins, but also between brands for the same host tree. For instance,

for one manufacturer (Helixor®), their pine VAE has one of the *highest* lectin contents. But pine VAE in any other brand tends to provide one of the *lowest* lectin levels.[7] Let's look at the four major VAE manufacturers, the host tree options they provide, and their associated phytochemical constituents. Then we'll observe the individual host trees themselves and begin to understand how mistletoe practitioners match each patient to their best host tree.

The mistletoe extract manufacturers

Helixor mistletoe is the most easily acquired VAE brand in the U.S. Helixor-type mistletoe is available through Uriel Pharmacy and is provided in three different host trees, with a variety of potencies: Apple (*mali*), fir (*abietis*), and pine (*pini*). Helixor's pine VAE (Helixor P) is the one that has that remarkably high lectin content (1900 ng/mL; see table 04.01). Helixor also provides a VAE with one of the lowest lectin contents—their abietis mistletoe extract (Helixor A). Lectin content is a strong consideration in many clinical situations. But more is not always better. Lectins drive a strong, positive inflammatory response, awakening the immune system. This is desirable for many people who have cancer. But there are situations where "less is more." With highly weakened patients, those who are completely new to VAE therapy, and for certain cancers, Helixor A (low-lectin abietis) is the best option. When practitioners are first mentored in VAE therapy, they often begin with Helixor A. It is a gentle but highly effective low-lectin VAE, regarded as a safe starting point for almost any cancer.

Like Helixor, Iscador® offers VAE from three different host trees in the U.S.: Apple (*mali*), oak (*quercus*), and pine (*pini*). (A preparation from the elm tree, Iscador U, is available in Europe as well.) With Iscador, their pine mistletoe extract has the lowest lectin content (table 04.01) in their trio. Then, instead of providing fir (*abietis*), they offer an oak (*quercus*) mistletoe extract that has an exceptionally high lectin content. All three of these extracts are available in two different potencies. Iscador's apple and oak mistletoe extracts are also available

in forms enriched with homeopathic metals (see chapter 8), which can enhance VAE therapy's effects. Between Helixor and Iscador, we have access to four of the most commonly prescribed mistletoe host trees (pine, fir, apple, and oak).

Mistletoe Type	**A Chain Mistletoe Lectin ng/ml**	**A-B Chain Mistletoe Lectin ng/ml**
AbnobaViscum abietis 20 mg		730
AbnobaViscum fraxini 20 mg	15,300	13,000
AbnobaViscum mali 20 mg	7,100	4,200
AbnobaViscum pini 20 mg	200	70
Helixor abietis 10 mg	30	Undetectable
Helixor abietis 50 mg	300	100
Helixor mali 50 mg	800	600
Helixor pini 50 mg(11)	1,900	900
Iscador mali 20 mg	500	300
Iscador pini 20 mg	3	Undetectable
Iscador quercus	*U.S. data unavailable*	
Iscucin abietis, H Strength	2,000	1,600
Iscucin mali, H Strength	8,100	8,000
Iscucin pini, H Strength	1,000	800

Key: Host Tree Species, Common Names

Abietis = Fir Mali = Apple Quercus = Oak

Fraxini = Ash Pini = Pine

Table 4.1: Lectin contents of common mistletoe products, by brand and host tree (compiled by Dr. Mark Hancock, MD, per K. Mulsow data, 2017)

Two other companies harvest mistletoe from a broader range of host trees. AbnobaViscum® provides extracts in four potencies from nine host trees: Almond (amygdali), apple (mali), ash (fraxini), birch (betulae), fir (abietis), hawthorn (crataegus), maple (aceris), oak (quercus), and pine (pini). AbnobaViscum is unique in that no other VAE manufacturer provides extracts from almond, ash, birch, or maple. Meanwhile, Iscucin® provides VAE in two potencies from eight host trees: Apple (mali), fir (abietis), hawthorn (crataegus), linden (tiliae), oak (quercus), pine (pini), poplar (populi), and willow (salicis). Linden, poplar, and willow are the unique options in this list. Though the unique host trees in the AbnobaViscum and Iscucin lists can give us more options for fine-tuning host tree selection for each patient, these two companies occasionally run into supply shortages in the U.S. I am careful about relying on their products as a sole mistletoe therapy and tend to use them as a complement to a Helixor extract as the primary VAE.

More is not always better: Phytochemical concentrations and host tree selection

Table 4.1 shows lectin levels for several extracts. Looking at the range of lectin concentrations across all four brands, it's useful to note that AbnobaViscum fraxini provides the highest and Iscador pini is the lowest. Far too often, patients say, "Whatever provides the highest lectin concentration, put me on that!" Keep in mind that lectins and viscotoxins are not the be-all components of VAE therapy. Patients respond to the full complement of constituents in an extract, and high lectin content does not always equal optimal response. Mistletoe extracts contain other less-studied but bioactive compounds including ferulic acid, caffeic acid, and various flavonoids. High lectin and viscotoxin levels are beneficial for certain cancers, but not all. For instance, in cell line studies, apple (*mali*) VAE, with its moderate lectin content, produced slightly better results in fresh post-op breast cancer cells, when compared to lectin-rich oak (*quercus*).[8] In another cell line study, bladder cancer cells responded more optimally to hawthorn (*crataegus*) and

linden (*tiliae*), compared to oak (*quercus*) or fir (*abietis*).[9] We do have a growing clinical and lab knowledge base to draw from when matching host tree to cancer type, but in many cases the specific methods of action are not yet known.

All that said, we do tend to look to higher-lectin preparations in situations where we wish to achieve an intensified warming response and when the cancer is especially aggressive. Lower-lectin extracts are more often used alongside chemotherapy or radiation, or when the patient is highly sensitive or weak. It is also common to alternate rhythmically between host tree types and brands, as we'll see in several of the case stories throughout this book.

Foundations of constitutional prescribing

For practitioners and patients familiar with homeopathic, Ayurvedic, or Chinese medicine, studying the qualities of the mistletoe host trees can provide an opportunity to further personalize treatment on a constitutional level. Chapters 6 and 7 will dive much deeper into constitutional factors when evaluating the individual patient. For now, we want to provide a gentle overview of what it means when an AM physician matches the gesture of the tree to the patient's constitution.

The first factor we look at when considering host tree options is the choice between *coniferous trees* (those with evergreen needles) versus *deciduous trees* (those with leaves that shed in autumn). If you think of the sheltering nature of a stand of pine or fir trees in a storm, the way one can often remain warm and dry underneath their dense and sturdy boughs, then you have a sense of the *general gesture* of coniferous host trees. This sheltering quality seems evident in the situations in which pine (*pini*) and fir (*abietis*) VAE wind up being especially effective. We use these extracts when patients are in the midst of aggressive conventional treatments or feeling weak afterward. Pini and abietis are indicated where there is reduced vitality, cachexia, or excessive sensitivity to lectin-rich VAE. These lower-lectin mistletoe extracts are appropriate for brain tumors and for immune system cancers like lymphoma and leukemia. Of course, that's all with the exception of

Helixor P, which, although it is a pine mistletoe, actually has a higher lectin content. We wind up using Helixor P more like a high-lectin deciduous mistletoe variety.

Deciduous mistletoe extracts are used more often to induce strong warmth response and fever. They are frequently used for metabolic and reproductive cancers, especially where the tumors are quite aggressive. We do sometimes look to deciduous host trees when caring for glioma and glioblastoma (brain tumor) patients if there is no edema (swelling). Some gliomas respond better to a higher lectin mistletoe extract if the patient can tolerate it. That depends on where the tumor is in relation to brain structures and whether the patient is on a steroid to reduce brain swelling and inflammation. We'll look at glioma strategies more closely in chapter 10.

As we begin to venture into *constitutional host tree matching*, one of the easiest places to start is with Helixor's constitutional overview (table 04.02). Helixor intentionally provides three host tree extracts that line up with the three *somatotypes* (or metabolic types). This is another factor we consider when selecting VAE by host tree. Not only do we look at tumor type tables (see appendix E); we also look at the person, for we are actually treating and assisting the person, not the cancer! The somatotypes are fairly accessible and often well-known even among conventional practitioners. In table 4.2, we see the somatotypes noted alongside the AM constitutional types. In this comparison, the *ectomorphic* person is typically slim, with a fast metabolism and possibly nervous disposition; the *endomorphic* person is more stocky, possibly overweight, and tends toward a slower metabolism; and the *mesomorph* is someone in between the two, often described as being athletic and having an intermediate metabolism. These three individuals align with particular mistletoe host trees. Those trees possess qualities similar to these human constitutions. You might think of the towering fir tree alongside the slim ectomorph, the round fruit of the apple tree associated with the endomorphic person, and the densely packed pine tree in relation to a sturdy, muscular mesomorph.

Product	Helixor A (Abietis, fir)	Helixor M (Mali, apple)	Helixor P (Pini, pine)
Constitutional Type	**Nerve-Sense** – Slim, lower energy, introverted tendency	**Metabolic** – Stocky or overweight, ruddy, extroverted tendency	**Balanced** – Athletic, intermediate build and energy levels
Somatotype	Ectomorphic	Endomorphic	Mesomorphic
Lectin Content	Lowest	Mid-range	Highest

Table 4.2: Constitutional aspects of Helixor products, by host tree (compiled by Dr. Steven Johnson, MD. Anthroposophic constitutional types according to Ernst Kretschmer)

As you can see, it is possible to select host trees based on documented *scientific, biochemical data.* We know that the host tree, its soil, and product-processing influence the composition and the quantity of bioactive substances in the mistletoe extract. We can also look at host tree selection empirically, based on a century of documented clinical experiences from hundreds of practitioners. There is a wealth of case stories and retrospective studies noting which host tree worked best for different cancers.[12]

We can also select extracts based on the *signature of the host tree,* matching it to the patient's constitutional characteristics or the signature of the cancer. For example, let's consider quercus VAE, from the oak tree. The Latin name for oak is *Quercus robur.* Robur means strong and robust. Historically, the main square of a town in Europe was always adorned by an oak tree. Town elders would sit under the oak, leaning their backs against the trunk and feeling its strength and inspiration flowing through to help them decide the fate of their community. Judgments were made under the oak tree. The oak grows slowly and steadily. It is mighty and powerful, withstanding many storms.

The cancer patient who fits this signature is known for his or her strength. They may appear "battle-weary," goal-oriented, strong-willed, or forceful. One cancer that particularly fits this signature is prostate cancer (mostly slow-growing and with a certain relationship to the metabolic-reproductive system). Quercus VAE can also be used in cancers of the digestive tract. Imagine how much the digestive tract has to withstand—and it is lined only with a single layer of cells, the epithelium of the mucosa!

When selecting the right host tree, I always keep in mind three decision-making influences: Intellect, Imagination, and Inspiration.

Intellect: Scientific studies and clinical findings
Imagination: Drawing from anecdotal reports and one-to-one mentoring
Inspiration: The intuitive art of healing and caring for the individual

It takes all three of these influences to choose the right VAE host tree for the situation in front of me right now. With these foundational anthroposophic basics in mind, let's look at the VAE host trees one-by-one.

The trees: A closer look at individual host-tree qualities[13]

As we look more closely at the gestures and qualities of the host trees and match them to tumor types, as well as the ideal patient constitution, our path can become quite nuanced. Expect to reread this section in the future. If you are a practitioner, expect to read other resources that go into much greater depth on this topic.[14] Refer often to the Host Trees and Cancer Types table (appendix E). For now, with each host tree, commit a few key qualities to memory. It takes time and repetition before this becomes second nature. That's why, in the anthroposophic world, new mistletoe practitioners are paired one-to-one with an experienced mentor.

Frequently prescribed coniferous host trees

Fir (abietis)

Available through Helixor, Iscucin, and AbnobaViscum. Abietis mistletoe extract, with its lower lectin content, tends to be considered gentle, sheltering, and structuring (think of needles instead of leaves, and cones instead of flowers). It is a reliable choice if patients are presently completing chemotherapy or radiation treatment. Abietis is often used for patients with tumors of the brain, head, neck, stomach, esophagus, and lung. Typically, they are tumors located above the diaphragm,

though abietis is also useful for prostate cancer and tolerated well by patients with lymphoma. It is also helpful in other cancers when there are bone metastases.

It's fascinating that AbnobaViscum's abietis mistletoe is recommended in eight of the twelve cancer types on the manufacturer's own host tree matching table. Across all the manufacturers, abietis is often considered the most versatile and gentlest VAE therapy. If a patient's condition is highly complex or weakened, as in an advanced palliative situation, abietis is often a safe and beneficial starting point.

The Abietis Person: This patient is often considered stubborn and reclusive, with a strong sense of responsibility. They often claim that they feel cold. They may express this as feeling cold in their core, in their stomach region or lungs, or they may express that they feel cold more systemically, like they cannot keep their blood warm.

Pine (pini)

Available through all four VAE manufacturers. Pini mistletoe is typically lower lectin, with the exception of Helixor P. *The following recommendations are skewed toward the lower-lectin brands.* Pini mistletoe is most commonly associated with tumors of the sense organs—with neurological cancers and tumors of the brain and skin. The affected parts of the body are organs that deal primarily with sense impressions (nervous system oriented), as opposed to organs that metabolize outside substances (such as the GI tract).

Pini mistletoe is a well-studied and widely applied standard treatment for lymphoma patients and has been especially beneficial in situations where there is a compromised immune system and recurrent infections.[15] It is also often used with certain breast cancer types and with tumors of the skin, the retroperitoneal region (kidneys, urinary tract), penis, testis, and cervix.

The Pini Person: This patient tends to suffer from guilt complexes, self-loathing, and even self-harm. They never feel adequate. They are usually lean, modest, and withdrawn, with a lot of intense thoughts and passions that they keep to themselves. Pini people see faults in

others, too, but they keep these thoughts to themselves. Physically, they often have respiratory challenges and allergies. For these individuals, pini VAE has the capacity to calm and soothe, like taking a pine bath when you have been feeling exhausted or stressed.

Frequently prescribed deciduous host trees

Apple (mali)

Available through all four VAE manufacturers. Mali mistletoe extract is most commonly associated with female reproductive cancers (breast, ovarian, uterine), though it is also useful for tumors of the abdominal region, and lymphatic cancer. Mali is actually one of the most common host tree variants that we use, and its selection is more often influenced by constitutional type.

The Mali Person: These patients tend to be a little overweight, perhaps pear-shaped, but look healthy and strive to exercise or maintain an athletic lifestyle. They tend to be more phlegmatic (stolidly calm) and shorter in stature. They frequently feel under-appreciated, unattractive, or unloved. Mali patients are often female but can also include men who have a strong sense of guilt or shame. They are often perfectionistic, sometimes compulsively so.

Ash (fraxini)

A little harder to obtain in the U.S., fraxini mistletoe is available through AbnobaViscum, depending on their supply. If you connect with AbnobaViscum, you'll learn the value of this mistletoe variety because of its high lectin content. Fraxini mistletoe is especially valuable for IV therapy and for fever induction (see chapter 10). It's used with very aggressive cancers with a strong tendency toward metastasis. Specifically, we use it with sarcoma, fast-growing pediatric cancers, and breast cancer that appears after a serious trauma.

If you look at the ash tree, it is quite massive and takes up a lot of water, so much so that other trees often can't survive near it. When other trees struggle, the ash thrives. It is a massive presence, and yet it lets a lot of light through because its leaves are thin and serrated. Ash

is extremely vital and, in AM practice, we believe it can impart some of this vitality (sun forces) to patients, especially in times when it seems that all is lost.

The Fraxini Person: The fraxini patient is incredibly capable and is often perceived as someone who "does it all." They are multi-tasking parents, often mothers who struggle to find and embrace their destiny. Hormone imbalances are also common. Fraxini is especially helpful for them when they have experienced excess trauma beyond the cancer diagnosis itself or when they are completely spent from surgery, chemotherapy, or radiation.

Hawthorn (crataegus)

Like fraxini, crataegus can be harder to obtain. But it is available through AbnobaViscum and Iscucin. Crataegus is high in lectins—one of the most warming—and can induce fever. Yet it is also well-tolerated by people who are in a weakened state. This mistletoe is used in complex and aggressive cancers, in situations where the patient may be too weak to tolerate fraxini. It is not so much a tumor-specific mistletoe; rather, we tend to select crataegus based on the patient's constitution and general state.

The Crataegus Person: This patient is someone who expresses that their heart or purpose has not been sufficiently nourished. There is a sense that their feminine side may be neglected. Physically, they may be bluish or show other signs of poor circulation. Often, they are in a space where they have no capacity for feeling. We use crataegus when this person has experienced a trauma or deep disappointment, are swept into a massive life transition, or are in severe shock from the cancer diagnosis. Until this trauma or shock is addressed, other therapies (conventional or integrative) will struggle to have an impact.

Oak (quercus)

Available through AbnobaViscum and Iscador. Quercus is used when there are dense, hard tumors—often of the pancreas, rectum, gall bladder, or prostate, or in hepatocellular tumors or squamous cell carcinoma of the lung. I tend to think of it as useful for tumors in any

organ where an external substance is taken in, metabolized, and eliminated. That includes any tumors of the digestive tract and the kidneys and respiratory system. This is in contrast with pini mistletoe, which is associated more with organs involved in sensory impressions.

As a tree, quercus has sturdy, earthbound, and nourishing qualities (it serves as a living space for a huge variety of small animals and produces calorie-rich acorns). As mentioned earlier, it is associated with wisdom and strength, as the gathering place for community elders. This tree has a leadership quality to it and can be useful for people who are themselves strong leaders or for those who long to embrace a stronger sense of leadership.

The Quercus Person: Quercus is most often used with male patients who have cancer, but it can be used for women too, especially if they have a strong, stoic, more stereotypically male constitution. Regardless of gender, they are typically compact, strong, and athletic. Quercus people work hard for others all their lives and never complain about it. They are dedicated to a fault and never permit weakness. No one knows that they are struggling. Though they care for others' wellbeing, they are poor at paying attention to their own feelings and self-care and may have trouble experiencing joy.

Secondary host tree descriptions

The following host tree sources are available through AbnobaViscum, Iscador, or Iscucin, and supply sometimes varies. However, they can be immensely helpful adjuvants (additional supportive therapies), used alongside a primary Helixor VAE. For practitioners, it is best to learn more about each of these varieties by connecting with your mentoring practitioner. The following is only a brief introduction to these diverse options.

***Almond** (amygdali):* Associated with patients who are unwilling to address past injustice and who may overachieve to compensate for hurt or bitterness. Used for neck and skin tumors, as well as lymphoma (available through AbnobaViscum).

Birch (betulae): Works beautifully for patients who have lost their enthusiasm and buoyancy; allows light to shine into a depressive state. Often used for kidney and bladder cancer as well as melanoma (available through AbnobaViscum).

Linden (tiliae): Associated with maternal types who are social and generous. Tiliae is frequently effective when other mistletoes fail to warm the patient. Often used for soft tumors such as endometrial cancer, adenocarcinoma of the lung, and some breast tumors (available through Iscucin).

Maple (aceris): Not referred to often but can be used to help people come back to, or newly discover, their destiny; restores a capacity for action (sense of personal agency). Used especially for liver, pancreas, prostate, and breast cancers (available through AbnobaViscum).

Poplar (populi): Often recommended for people who seem fearful, superstitious, or excessively religious. Frequently used for aggressive bladder and prostate cancers (available through Iscucin).

Willow (salicis): Used for patients who lack life (etheric) forces and have a generally negative attitude; helps restore hope. Frequently used for leukemia, myelodysplasia, bladder cancer, ovarian cancer, and testicular cancer. May also be used when there are precancerous conditions or in cancer prevention strategies (available through Iscucin).

Basics of rhythmic administration and alternating host trees

As we've described in previous chapters (and appendix A), mistletoe therapy ought to elicit a mild inflammatory reaction at the subcutaneous (SC) injection site or a measurable systemic warming response with IV administration. These are signs that the VAE is successfully awakening and intensifying immune activity.

The degree of reaction will vary from patient to patient, depending on how VAE interacts with their immune system and constitution, and depending on the dosing strategy and treatment goals. With some cancers, it may be appropriate to provoke a significant fever

response right at the start, but this strategy should be pursued only if the patient seems strong enough (see chapter 10). Fever requires energy and exertion from the patient. Sometimes the patient is too weak for that effort.

If the patient is quite weakened, it can be helpful to prime the immune system with a low-lectin VAE administered subcutaneously, with a "low and slow" approach to increasing dosage. I typically start patients with a Helixor mistletoe extract, as that is the best-tolerated brand for most people and is usually the most readily available too. Once the patient begins to respond to SC injections, and their body grows accustomed to the treatment rhythm, I might try adding IV treatment using VAE from the same or an alternate host tree.

It can be highly beneficial to alternate host trees along with alternating administration methods. We often see a rigidity in people who have cancer, sometimes from long-time personal patterns, sometimes influenced by the transition into a reality dominated by high-stress medical appointments and treatment schedules. Rhythmically alternating host trees can help to loosen this rigidity and nurture some inner flexibility. It is especially effective to alternate a coniferous with a deciduous host tree variety. Using two host trees can introduce a broader range of host tree qualities and beneficial phytochemicals, too.[16,17] Sometimes this translates as using one host tree variety for the SC injections and another for IV administration. Or it could involve SC injections, using one host tree extract at home and then coming into the clinic once a week for an injection of another host tree extract. Frequently the host tree extract used at home is a lower-lectin mistletoe, while the injection administered in clinic has a higher lectin content. This allows for an occasional punctuated rhythmic response and permits the practitioner to monitor the reaction to the higher-lectin extract. Whichever host trees are selected for the patient, whatever the administration route, there is definitely a rhythmic nature to VAE therapy—warming the immune response, letting the response resolve, and then encouraging the heightened immune activity again.

Dosing considerations common to all four manufacturers

With all the VAE manufacturers, there are some across-the-board similarities. All dosing guidelines start low and increase in strength as tolerated, until the patient experiences a local reaction or slight temperature increase or both. All the manufacturers recommend some variation of dosing in a cycle from low to high, again and again, with breaks in between (see appendix A). They all respect that the dosage should be modified based on the severity, stage, and symptoms of the disease process, and on the level of patient compliance.

The importance of that last factor cannot be overstated. If I set up a dosage calendar for a patient, and it's too complex for them to implement, the SC injections will happen sporadically at best. I'm always sensitive to the issues of overwhelm and poor short-term memory during cancer treatment. Sometimes I drastically simplify a SC injection calendar to accommodate the fact that a patient may be able to remember only two injections per week. I find that, in the U.S., patients often seek out integrative care after they are already well into their cancer journey. This can result in greater compliance challenges—not because they do not want to do the therapy, but because they genuinely can't keep track of it all.

Remember to spend time with the trees

Both patients and practitioners can get overwhelmed by all the facts and nuances surrounding host tree selection and rhythmic administration. Perhaps the most important thing we all can do is to spend time with some of these trees. Several of them likely grow in your region. Take time in nature, sit with coniferous or deciduous trees, and admire and learn their gestures, their innate qualities. This is the heart of anthroposophic medicine: to experience who the patient is and to experience the spirit of the medicinal substance, whether mineral or botanical. Listen to what that substance is telling you.

Ultimately, life is a miracle. Nature is a miracle. Miracles cannot be analyzed. We need to develop other sources of knowledge that are dormant in us, rather than solely finding ourselves sucked into endless

internet searches or overwhelmed by lectin content tables. Powerful answers come to us when we combine both *conventional scientific knowledge* with *spiritual scientific knowledge.* Rudolf Steiner called this *spiritual science.*[18] Effective whole-person care flows from that unified awareness.

CASE STORY ONE: PAUL

When the Patient's Mistletoe Reaction Plateaus				
Physician: Dr. Peter Hinderberger	**Patient:** Paul	**First seen:** June 2015	**Age:** 53	**Sex:** Male
Cancer Type & Stage:	Non-small cell, right lung cancer with local lymph node involvement. T2bN1 at start of conventional treatment in January 2015.			
Risk Factors:	No obvious risk factors (non-smoker, non-smoking home and non-smoking family of origin). However, patient is an office worker at a feed mill (possible chronic grain dust exposure).			

When Paul came to me, he had already journeyed through the initial lung cancer diagnosis and conventional treatment. He came to me seeking guidance on preventing recurrence—which is common with non-small cell lung cancer (NSCLC). Paul shared the story of his diagnosis and treatment. He had been experiencing shortness of breath, a cough, and wheezing for about three months when he went to his primary care physician. A chest X-ray showed a mass in his right lung. There was evidence of lymph node involvement. T2bN1 lung cancer meant that treatment would be rather aggressive. Conventional treatment included a right *pneumonectomy* (removal of the right lung), followed by 16 weeks of chemotherapy.

Paul had been through a lot, but he had tolerated chemotherapy remarkably well. He had lost 18 pounds during treatment but had gained it back by the time he and his wife met with me. He was in exceptionally good health and spirits, given what he'd been through. But he and his wife were, of course, understandably anxious about recurrence.

Perhaps the biggest reason for concern was his lack of known risk factors. How could they prevent recurrence of a condition that didn't appear to have a typical cause? Paul had never smoked. No one in his house smoked, and no one in his childhood home had been a smoker. His family history was full of people in great health. I couldn't find indications of severe toxin exposure, either.

Paul ate mostly organic foods and avoided processed foods and white sugar. He drank plenty of water, avoided coffee, took a multivitamin, and took daily walks. He did have occasional alcoholic drinks, but no red flag habits. He wasn't taking any prescription medications for any other health conditions. As far as his labs, Paul's CBC w/diff and CMP (see chapter 5) were all healthy, and his follow-up CT scan showed no cancer activity. Apart from the expected "diminished breath sounds" on the right side, his physical exam was normal.

The only clear risk factor I could find was his job. Paul worked in the office of a feed mill. I had some concerns that he might be dealing with ongoing grain dust exposure. It didn't seem a major risk factor, but maybe for some reason, for Paul's body it was.[19]

If he couldn't change his job, we had to focus on supporting his body in the face of that possible risk factor. Paul had a good diet, but I shared tips for fine-tuning his nutrition and fully avoiding foods that can become quick energy for cancer cells. I'm more interested in compliance than complexity when it comes to anticancer diets. My dietary philosophy is to address acidity, inflammation, and sugar.

In short, I encouraged Paul to avoid all processed carbs, white sugar, fruit juices, tropical fruit, and dried fruit—all of which are exceptionally concentrated sources of sugar. He needed to avoid wheat too, though very occasional dark, sourdough, rye bread would be okay, as long as it was true fermented rye, not a pigmented white flour. As with all my patients, I asked Paul to continue avoiding caffeine and avoid alcohol (both acidify the body) and start each day with a dose of apple cider vinegar or the juice from a fresh lime or lemon to alkalize the body. Finally, I explained that he should increase his intake of organic vegetables and eat a small serving of a fermented food (kombucha, kimchi, kefir, sauerkraut, etc.) every day. Paul and his wife heard all these recommendations and seemed happy to take on the dietary adjustments. There wouldn't be any major issues with dietary compliance since they already ate so well.

Then we discussed adjuvant therapies. I recommended a gentle VAE Abietis Series 1 (Helixor), one vial every other day till Paul experienced the hoped-for local response. His condition was stable,

and I recommend only SC mistletoe (not IV) when a cancer is stable. I chose abietis initially because of Paul's constitution (more nervous-sensitive type), his gender, and because of the location of the tumor (lungs). He responded to 5 mg of VAE and gradually built up to 20 mg, which became his maintenance dose, three times per week. I also recommended artemisinin SOD along with Beta 1,3 Glucan for general immune support.

Paul followed this preventive strategy for two years. In the spring of 2017, he noticed his injection site reactions had significantly decreased. A two-year follow-up CT scan in 2017 showed a subcutaneous 10 mm soft tissue nodule on the right anterior chest wall and a few sub-centimeter hypodensities in his liver. Neither were conclusively cancerous and, for the moment, Paul did not want to go through a biopsy of the chest wall mass.

He preferred pursuing our treatment course first, then re-scanning. There was nothing in the CT report that indicated anything had traveled from the lungs to the lymph nodes and, from there, jumped to the chest wall. So, I felt comfortable with this patient preference as well.

With this situation, changing host trees seemed one of the most effective strategies. Paul was no longer reacting to the 20 mg abietis. If he'd stayed on abietis, I would have at least increased his dosage to 50 mg. But I believed switching host trees might be even more effective. I switched him to Iscador Quercus because it is recommended predominantly for men, and it is also appropriate for respiratory tract cancers. It has a higher lectin content, so I knew it would have a strong chance of reinvigorating his immune system's response to the SC VAE injections.

We switched Paul to 20 mg SC Iscador Quercus, three times per week. (Iscador Quercus is a fermented product, so it is more concentrated; the 20 mg of Iscador Quercus is equivalent to 50 mg of the Helixor A.) This change—both in host tree and equivalent dosage—allowed Paul to experience an adequate reaction once again. He followed this adjusted regimen, and within six months, his CT scan normalized and showed no evidence of the mass previously seen on the right chest wall. The hypodensities in the liver were unchanged; they are most likely hemangiomas (benign vascular tumors).

Paul has continued with this adjusted course and remains in good health. He continues self-administering 20 mg Iscador Quercus, three times per week. He is breathing well, sleeping well, walking daily, and still working. He is now six years out from his original diagnosis, and he was excited to email me his most recent CT scan in November 2020: *still clear.* We may never know precisely what made him vulnerable to this particular cancer. But his therapeutic plan and lifestyle are helping him maintain his good health, and we've been able to respond successfully to setbacks along the way.

CASE STORY TWO: MARY

Matching Host Tree to a Patient's Newly Found Sense of Self				
Physician: Dr. Peter Hinderberger	**Patient:** Mary	**First seen:** April 2011, second diagnosis in 2018	**Age:** 60	**Sex:** Female
Cancer Type & Stage:	2010: right ovarian cancer, 1 positive lymph node. 2018: 1.3 cm mass found in left breast. MRI guided biopsy showed a well-differentiated ductal adenocarcinoma (ER+, PR+, HER2-negative).			
Risk Factors:	Significant personal stress; past diagnosis of Lyme disease (not currently symptomatic).			

Mary was diagnosed with ovarian cancer in 2010, and I first saw her in 2011 after she had gone through a total hysterectomy and chemotherapy. When we met, she was recently divorced and lived with two of her three children. The oldest child lived independently. Mary worked for a publisher, but her passion was her own creative writing—though she clearly didn't have time for exploring that. She cared much more for others than for herself. Her life revolved around her children. That's common for many parents, but for Mary it seemed more pronounced. She'd not had her husband's support for years, and now they were divorced. This was an incredible source of stress on top of the cancer diagnosis.

Having completed conventional care, she was exploring how to prevent recurrence. She did seem on the verge of transformation and creating a healthier life for herself. Mary was 5'9" and weighed 186 pounds at her new client appointment. In her past, she'd also been diagnosed with Lyme disease, but was symptom-free at the

time. Her physical exam and labs were otherwise within normal ranges. We discussed therapeutic options and lifestyle changes.

Mary was open to mistletoe. I shared that VAE from the mali (apple) tree would be highly appropriate for her. VAE mali is frequently recommended for women, particularly those who are incredibly nurturing, yet sometimes turn bitter toward others who have perhaps taken advantage of them.[20] This is an understandably common constitutional imbalance among any people in care-providing roles. Mali is also indicated for cancers of the reproductive organs, and for people who have a "pomaceous" body type, with fat distribution tending lower, at and below the waist line.

We discussed that extra weight. Mary was 60 at the time, and I shared how extra fat tissue can be a challenge in terms of female reproductive cancers. Later in life, after the ovaries become dormant (or if they are removed), fatty tissue continues to produce hormones, and so do the adrenal glands. She was aware that this fatty tissue was a hormone-balance risk factor. It is good to lose the weight, but of course, any weight loss program needs to be pursued at a balanced pace.

Mary understood all this and wanted to start on mistletoe too. She worked up to 20 mg of *Viscum Mali* injected subcutaneously, three times weekly for the first two years, then twice weekly for the next three years. During that five-year period, Mary also transformed her life. Her children grew up and moved out, and Mary moved into a condo, creating a space that suited her well. She began working on her own writing. She lost 40 pounds and attended support programs through a community-based nonprofit that offered free services to people affected by cancer. Mary was successfully maintaining a cancer-free life, and we shifted her mistletoe schedule to reflect that: four times per year, she completed a single series of *Viscum Mali* Series 2.

Then in 2018, when Mary was 67, a mammogram and ultrasound showed a 1.3 cm mass in her left breast. An MRI-guided biopsy showed a well-differentiated ductal adenocarcinoma (ER+, PR+, HER2-negative). She had cancer again, which isn't unusual after surviving ovarian cancer. But this time Mary seemed different. She presented as a woman who was far more confident and self-assured. She had just published her first novel and seemed lighter than before,

even though this new diagnosis was in her reality. She was open to adjusting her mistletoe therapy and looking at other complementary therapies too, particularly focused on hormone balance. She decided against lumpectomy, radiation, and hormone-deprivation therapy (aromatase inhibitor). She wanted to try "other options" first.

We returned to the discussion of hormone balance after menopause. In terms of whole health and cancer risk, there are multiple forms of estrogen and progesterone, and some of these forms are beneficial, some are not. Estrone, for instance, is a form of estrogen associated with higher cancer risk.[21] As we get older, we tend to produce more of the hormone intermediates—the bad forms. When an ER+, PR+ breast cancer appears years after ovarian cancer, it's common to use an aromatase inhibitor to block the bad hormone forms that would fuel the cancer. But an aromatase inhibitor cuts off *all hormone production* at the very top, even the good forms. It is possible to support healthy *hormone metabolism* instead—to help the body clear out the bad hormones and allow the useful forms to remain. This can be done with certain supplements, particularly calcium D-glucorate, a nutrient found in some citrus fruits and broccoli, and DIM, an extract from cruciferous vegetables that helps break down excess hormones.[22] With Mary, I also recommended myomin, which works similarly. Instead of blocking hormone production, this approach would activate her healthy hormone metabolism.

Mary was very interested in this. She had developed a significant supplement protocol of her own as well. She was taking melatonin, vitamin D, liposomal vitamin C, and turmeric. I saw no problem or potential toxicity with any of these, so she continued with them. I also recommended low-dose naltrexone (LDN, see chapter 9) and metformin (though her transformed diet and weight loss will likely make the latter unnecessary for her at some point). Mary had been eating a modified vegan diet: avoiding all animal products, except fish. As long as she continued to eat fish (a source of Omega-3, needed for hormonal balance), I was fine with that, too.

Then we looked at her mistletoe therapy. There was room for a couple potentially powerful changes, in terms of both host tree and dosage. Mary's life and her entire presence had shifted significantly. Constitutionally, she was happier in her own skin, more confident. It seemed *Viscum Mali* no longer suited her. She was no

longer trapped in that caregiving cycle of putting others first to the point of harming her own health.

In contrast, *Viscum Pini* has been described as suitable for the person who "suffers from self-reproach, guilty feelings, and discouragement...[but when] transformed they accept their own weaknesses and can forgive themselves for their own shortcomings..."[23] Mary looked more like the "transformed pine personality" than the typical apple personality. I also wanted to increase the lectin content of her VAE therapy, given her new cancer diagnosis. Helixor's pini mistletoe (Helixor P) has a higher lectin content than their mali mistletoe. It is also generally recommended for breast cancer in postmenopausal women.

Mary switched from her seasonal 20 mg *Viscum Mali* series to *Viscum Pini* 50 mg, administered via SC injections three times per week. Because of the cancer recurrence, and particularly because it appeared as breast cancer, I recommended that she remain on a similar VAE regimen for the rest of her life. With so many other aggressive cancers (i.e., colon, pancreatic), if a patient is cancer-free at five years, they are truly "in the clear." But breast cancer is unique. It's one of the few cancers that can go dormant and then recur ten or twenty years later. It has its own agenda regarding time. I shared this with Mary, and she seemed ready to commit to making mistletoe a regular part of her ongoing wellness care.

In April 2018, Mary began both the adjusted mistletoe therapy and the new hormone-balancing supplements, in addition to continuing all the positive self-care she now had in her life. Three months later, ultrasound showed a stable situation, based on measurements where a clip had been placed in February 2018. Six months later, the tumor measured 0.9 cm (a 0.4 cm decrease). In July 2020, the area around the clip was negative. As of early 2021, Mary is stronger than ever and still cancer-free. She continues her nutritional and self-care strategies, along with SC *Viscum Pini* two times per week. Just as importantly, she is a transformed person. She lives a life that is a truer expression of her "I."