Matula Herbal Formula
Product Fact Sheet

(Natural Antibacterial, Antimicrobial, Antifungal and Pro Vulnerary)

Matula Naturals

(Available in Packs of 60 Sachets equivalent to a full 30 day treatment)

The background behind Matula Herbal Formula

Matula Herbal Formula was discovered in 1998 and has successfully served the global health conscious community since 2006.

Antibacterial, Antifungal, Antimicrobial and Pro Vulnerary Properties

When one considers the historical uses of specific plants in traditional medicine, it is easy to see how the combination of the herbs in Matula Herbal Formula have such a powerful and broad spectrum range. All of the families and individual herbs found in Matula Herbal Formula (see table below), have specific antimicrobial, antifungal, anti-helminthic, antibacterial and pro vulnerary properties. Each of the families of herbs have enjoyed long and safe reputations for the treatment of a wide range of GI Tract diseases, illnesses and infections and other abdominal complaints.

Efficacy and Safety

Doctors have been using Matula Herbal Formula since 2006 and most notably none of them have identified or experienced any negative side effects. In laboratory studies, Matula Herbal Formula has shown to have lower toxicity than commercially available herb teas like Redbush ("Rooibos" from South Africa). In clinical practice, Doctors have compared various parameters like Liver function, Renal function and peripheral Blood Smears pre-treatment, during and post-treatment. They have not found any negative change in any of these parameters.

In terms of efficacy, Doctors, commonly, achieve near perfect efficacy with 99% of treatments being successful in one 30 day treatment period. Being an enjoyable herbal tea that requires little effort to prepare, compliance is not really a factor.

Matula Herbal Formula - Broad Spectrum uses

Doctors have found Matula to be effective in most upper abdominal complaints. Even if Helicobacter Pylori, E. coli and Candida tests have been positive or negative, like GERD and Non Ulcer Dyspepsia, Peptic Ulcers, Small Bowel Inflammation, Dysbiosis, Diverticulitis, Ulcerative Colitis, Barrett's Esophagus and Gastroenteritis, both in the bowel as well as vaginal and dermatological. Some Doctors have also used Matula Herbal Formula as a topical application for impetigo lesions, for intra nasal staphylococcal infections, for otitis externa and even eye infections. Doctors have even reported treating a venous stasis ulcer, with a mixed bacterial infection, successfully!

In Vitro Study and Endorsement by Professor Patrick JD Bouic

Please refer to the Full Scientific Study Report in Annexure A that also contains Professor Patrick Bouic's endorsement of Matula Herbal Formula.

In Vivo Study by Dr. Jon Morley

Please refer to Dr. Morley's study that he conducted on 26 patients in Annexure B. The result of the study shows a 96% success rate in the successful eradication of H. pylori.

Why a Liquid and not Tablets or Capsules?

Ingested liquid is one of the finest forms of treatment simply because it is a fluid. Liquids have superior absorption of the

active ingredients into the body and this optimizes the healing process.

It is even more important to have a liquid treatment when the purpose of the treatment is to eradicate **bacteria like H Pylori** in the stomach. The reason for this is that a liquid covers a greater surface area of the stomach lining and saturates the bacteria in the liquid allowing enough time for it to be killed off. If you can imagine a tablet or capsule sitting in one small area of your stomach lining slowly dissolving, it becomes quite obvious that it simply just cannot be as effective as a tea. This explains why tea has been used as a medium for effective treatment for many centuries already.

How does Matula Herbal Formula actually work?

Once again Matula Herbal Formula is a natural antibacterial, antimicrobial, antifungal and a pro-vulnerary. It works both systemically and topically in eradicating H. pylori and other infections or treating a wide range of GI Tract diseases. As a vulnerary Matula Herbal Formula heals gastritis, the full range of stomach or duodenal ulcers and other associated digestive diseases.

Matula Herbal Formula is highly effective through the systemic route because the active ingredients are absorbed directly into the blood and when each bacterium of the H. pylori burrows into the stomach lining it naturally comes into contact with the blood. The effect of this is that large colonies of H. pylori bacteria are eradicated by the active ingredients in the blood.

From a topical route the active ingredients of Matula Herbal Formula comes into direct contact with H. pylori bacteria that are mostly found in the mucosa membrane from the oesophagus, the stomach lining and also duodenum. Matula Herbal Formula has a remarkable porous or absorbent effect of the mucosa membrane and therefore as it saturates the colonies of H. pylori they are destroyed rapidly. The scientific study shows that at a 50% concentration Matula Herbal Formula has an inhibition rate of 93%. What this actually means is that Matula Herbal Formula successfully eradicates 93% of the H. pylori bacteria that it comes into contact with for every dose.

Another important point is that Matula Herbal Formula does not necessarily destroy other good flora. This is because Matula Herbal Formula is retained in the stomach for up to 3 hours before it is passes on into the large intestine and colon where most of the good and bad flora reside. During the 3 hour period the active ingredients are absorbed into the mucosa membrane of the stomach lining where the H. pylori is present. The left over active ingredients is therefore far less concentrated and when it reaches the colon it does not harm the good flora. Another point is that Matula Herbal Formula is less toxic than an ordinary cup of Herbal tea and therefore it will not destroy good flora unlike allopathic antibiotics that are considered toxic.

Best Practice Treatment Regimen to follow when using Matula.

Medical Practitioners who have recently started practicing Functional Medicine report back that they have been able to achieve 100% success rates when using Matula Herbal Formula to eradicate H.pylori.

Preparation Instructions and Recommended Dosage

The recommended dosages of Matula Herbal Formula are as follows:-

First thing in the morning, at least half an hour, but preferably one hour before eating breakfast. Always take on an empty stomach.

Last thing, before going to sleep at night, preferably two hours after completing dinner.

The preparation of Matula Herbal Formula is simple. Add 150 ml (half a coffee mug) of purified boiling water to a mug. Remove the bag from sealed sachet and add to the boiling water. Allow the bag to release the active ingredients and draw out from 10 to 15 minutes.

The Ingredients of Matula Herbal Formula

Matula Herbal Formula™ - Ingredients The primary constituents of the formulation are as follows:-	
Herbs	**Plant Parts used**
Oleacea Asteracaea Fabaceae Myrtaceae Alliaceae	A combination of finely ground ... Flowers Stems Leaves Fruit
This proprietary formulation comprises premium quality, ALL NATURAL non-GMO herbs. Matula Herbal Formula™ is conveniently packed in sealed and protected sachets. A total of 60 Sachets are then packed in a box that makes up a one month supply. Matula Herbal Formula™ **DOES NOT CONTAIN** any traces of wheat, caffeine, gluten, corn, soy, milk, egg, sugar, colorings or preservatives. Matula Herbal Formula™ is packed in an FDA Approved facility and has a 2 year shelf life.	

THESE STATEMENTS HAVE NOT BEEN EVALUATED BY THE FOOD AND DRUG ADMINISTRATION. THIS PRODUCT IS NOT INTENDED TO DIAGNOSE, TREAT, CURE, OR PREVENT ANY DISEASE.

Matula Herbal Formula Scientific Results

Information Extracted from Synexa Life Sciences Report

Organism	Concentration of Matula	Percentage Inhibition
Staphylococcus aureus ATCC 25923 (Gram +)	50%	94%
	33%	35%
	20%	44%
Escherichia coli ATCC 35218 (Gram -)	50%	80%
	33%	69%
	20%	44%
Escherichia coli ATCC 25922 (Gram -)	50%	86%
	33%	74%
	20%	56%
Helicobacter pylori Clinical isolate (Gram -)	50%	93%
	33%	92%
	20%	74%
Candida Albicans	50%	93%
	25%	84%
	5%	70%

References

1. *Labropoulou et al, 2004. Do hyperplastic polyps of the colorectum represent an extragastric reservoir for Helicobacter pylori infection?*
2. *Kivi et al, 2003. Concordance of Helicobacter pylori Strains Within Families.*
3. *Kafritsa et al, 2002. H. pylori in children's dental plaque: Correlation with the H. pylori Infection status of their parents.*
4. *Azevedo et al, 2005. Factors Affecting the Adhesion of Water-Stressed Helicobacter pylori to plumbing Materials.*
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6. *Hunt, R.H., & Tytgat, G.N.J., 1998 Helicobacter pylori: Basic Mechanisms to Clinical Cure. Pages 70-71.*
7. *Tytgat, G.N.J, 1995. Endoscopic transmission of Helicobacter pylori. Aliment Pharmacol Ther 1995; 9 Supp 2: 105-110.*
8. *Gosciniak et al, 2007. Prevalence of Anti-Helicobacter spp. Antibodies in Dogs.*

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Annexure A

synexa
LIFE SCIENCES

3 August 2006

TO WHOM IT MAY CONCERN:

I, Professor Patrick JD Bouic, the undersigned hereby confirm that we conducted *in vitro* tests using the herbal extract named Matula. The extract was assayed for its anti-microbial activity against a range of bacteria including both gram-positive and gram-negative strains.

We were impressed by the level of bio-activity exhibited at relatively low concentrations of the extract provided: the extract killed both gram-positive as well as gram-negative bacteria as determined by a sensitive chemiluminescence assay at relative concentrations of 20% final volume. The bacteria tested included repository strains of Staph. aureus and E coli.

However, the most exciting results obtained were when clinical strains of Helicobacter pylori were assayed. The strains were assayed as above and again, the Matula extract proved its efficacy in killing off the strains.

No overt cytotoxicity against human cells (peripheral blood mononuclear cells) or T-cell lines were detected in cell viability assays indicating that the extract was not likely to be toxic for human cells whereas the said extract exhibited anti-microbial activity under these testing conditions.

The extract provides promising applications as a wide-spectrum anti-microbial agent and deserves further experimentation and possible applications clinically.

Yours sincerely

Prof. Patrick JD Bouic
Dept. Medical Microbiology, University of Stellenbosch
Chief Technical Officer, Synexa Life Sceinces (Pty) Ltd

synexa
LIFE SCIENCES

BioActivity Screening Services

Matula Tea

October 2006

Please note that some information has been intentionally deleted from this report. The reason why this has been done is because certain scientific testing is still work in progress and as such the intermediate results cannot be placed in the public domain at this time. The information available has not been altered or changed in any way to distort the views expressed by the joint authors of this report.

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1. Methodology

1.1 General Information

The prepared product was provided by the client. This was a herbal tea, known as "Matula" tea. The product was filter sterilized and used as is in all the assays. All assays were performed in duplicate. Sterile methods and equipment was used throughout all the assays where needed.

1.2 First Phase Anti-bacterial Screening

The product was tested for activity against three different bacteria. These bacteria were *Staphylococcus aureus* (ATCC 25923), *Helicobacter pylorii*, and two strains of *Escherichia coli* (ATCC 35218 and ATCC 25922). *S. aureus* and *H. pylori* were grown up over night in a slime broth, while the two *E. coli* strains were grown up overnight in nutrient broth.

The overnight cultures of bacteria were then incubated overnight in the presence of three different concentrations of Matula tea, namely 50%, 33%, and 20%. A positive control culture of each bacteria and each concentration was also incubated overnight in the presence of matching concentrations of sterile water. This was done to compensate for the water component present in the tea. Negative controls (media with the respected concentrations of sterile water) were also included in this experiment.

A chemi-luminescent assay was used to determine the amount of viable bacteria cells in each instance. Background luminescence was eliminated by deducting the negative controls from their corresponding results. The difference between each positive control and its equivalent of bacteria cells in the presence of Matula tea was expressed as a percentage of inhibition.

1.4 Second Phase Cell Viability Testing

The product was tested for its effect on the viability of PBMCs at three different concentrations. The effect of Matula tea was compared to the effect of filter sterilized rooibos tea, since rooibos tea is generally regarded as safe. Three different concentrations of the product and rooibos tea was used, namely 5%, 2% and 1%.

Peripheral blood mononuclear cells were isolated via density centrifugation from fresh whole blood from a healthy donor. The isolated PBMCs were then suspended in complete medium and diluted with complete medium to an approximate final concentration of 1 million cells per milliliter. The PBMCs were incubated overnight in the presence of the three different concentrations of Matula tea and rooibos tea.

A chemi-luminescent assay was used to determine the amount of viable cells in each instance. Background luminescence was eliminated by deducting the negative controls from their corresponding results. The difference between each positive control and its equivalent of cells in the presence of Matula and rooibos tea was expressed as a percentage cell death.

1.5 Second Phase Anti-bacterial screening

After the first phase of anti-bacterial evaluation it became apparent that the product displayed significant anti-bacterial activity. To further explore the commercial value of this activity the product was tested for activity against the problematic methicillin resistant *Staphylococcus aureus* (MRSA). Furthermore and based on testimonials, the product was also tested for antifungal activity, in specific against *Candida albicans*.

MRSA and *C. albicans were* grown up overnight in nutrient broth. The overnight culture of MRSA was then incubated once again overnight in the presence of four different concentrations of Matula tea, namely 50%, 20%, 10% and 5%. In the case of the *C. albicans* culture, Matula tea was only used at 50%, 25%, and 5% concentrations. A positive control culture of each culture and each concentration was also incubated overnight in the presence of matching concentrations of sterile water. This was done to compensate for the water component present in the tea. Negative controls (media with the respected concentrations of sterile water) were also included in this experiment.

A chemi-luminescent assay was used to determine the amount of viable microbic cells in each instance. Background luminescence was eliminated by deducting the negative controls from their corresponding results. The difference between each positive control and its equivalent of microbial cells in the presence of Matula tea was expressed as a percentage of inhibition.

2. Results

2.1 First Phase Anti-bacterial Screening

2.1.1. Organism: *Staphylococcus aureus* ATCC 25923 (Gram +)

Concentration of Product	Percentage Inhibition
50%	94
33%	35
20%	44

2.1.2. Organism: *Escherichia coli* ATCC 35218 (Gram -)

Concentration of Product	Percentage Inhibition
50%	80
33%	69
20%	44

2.1.3. Organism: *Escherichia coli* ATCC 25922 (Gram -)

Concentration of Product	Percentage Inhibition
50%	86
33%	74
20%	56

2.1.4. Organism: *Helicobacter pylorii* Clinical Isolate (Gram -)

Concentration of Product	Percentage Inhibition
50%	93
33%	92
20%	74

2.3 Second Phase Cell Viability Testing

2.3.1. PBMCs death in presence of Matula Tea

Concentration of Matula Tea	Percentage Cell Death
5%	10
2%	28
1%	22

2.3.2. PBMCs death in presence of Rooibos Tea

Concentration of Rooibos Tea	Percentage Cell Death
5%	10
2%	32
1%	37

2.4 Second Phase Anti-bacterial screening

2.4.2. Organism: *Candida albicans*

Concentration of Matula tea	Percentage Inhibition
50%	93
25%	84
5%	70

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3. Discussion

3.1 First Phase Anti-bacterial Screening

The product displays a significant anti-bacterial effect against both Gram + and Gram – bacteria. Furthermore, it displays potent activity against Helicobacter pylori, the major cause of stomach ulcers.

3.3 Second Phase Cell Viability Testing

The effects of Matula tea on the viability of PBMCs is similar, and even slightly less pronounced, when compared to the effect of Rooibos tea on the same cell type. Since Rooibos tea is generally regarded as a safe herbal tea, it was used as a comparison in this experiment.

3.4 Second Phase Anti-bacterial screening

. Furthermore, Matula tea had a significant inhibitory effect on *C. albicans* across the concentration range used in the experiment.

Signed:

Prof. P.J.D. Bouic
Chief Technical Officer
.....

W.J. Kriek
BioActivity Screening Manager
.....

Please note that some information has been intentionally deleted from this report. The reason why this has been done is because certain scientific testing is still work in progress and as such the intermediate results cannot be placed in the public domain at this time. The information available has not been altered or changed in any way to distort the views expressed by the joint authors of this report.

Annexure B

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Summary of the Treatment of Helicobacter Pylori Patients using Matula Herbal Formula, an Observational Study. (Nov 2006-Dec 2007)

Number of Patients: 26

Age Variation: 32-76years

All patients treated following positive Helicobacter Pylori tests, 69% positive H. Pylori Stool Ag, 31% H. Pylori serum Ab.

Method:
All patients were treated with a one month course of Matula Herbal Formula. The protocol used was to treat patients with one cup of Matula Herbal Formula twice daily, taken on an empty stomach. The tea was steeped in freshly boiled water for 10-15minutes prior to consumption. It was drunk first thing in the morning and last thing at night before retiring. The tea could be sweetened using a little honey if desired.

All patients that were taking any medication for the relief of dyspeptic symptoms, stopped their treatment prior to commencing the Matula Herbal Formula. A whole-food diet was advocated (i.e no processed food), with appropriate guidance on an individual basis as I felt was needed in each particular case.

Follow-up H. Pylori screens were done at 8 weeks post-treatment, and again at 16 weeks post-treatment. All patients were followed up clinically 2 weeks after starting treatment, on completion of treatment and after test results were obtained. 25 patients were seen at the first and second follow-up consultations within the month of treatment.

73% (19) returned for the 8 week retest and only 54% (14) returned for the 16 week retest.

Results:
23 out of 26 patients experienced complete symptom relief at the two week clinical follow-up. 24 patients experienced complete symptom relief at the four week follow-up.

[Symptom relief was gauged as at least 80% reduction in dyspeptic symptoms: epigastric pain, bloating, indigestion, nausea, heartburn and night time reflux symptoms.]

Of the 19 patients (73%) that were retested at the 8 week retest, 18 were clear of H. Pylori on stool Ag markers. Of the 14 patients (54%) that presented for the 16 week retest, all 14 were remained H. Pylori Stool Ag negative.

9 patients that didn't have the final retest were still contacted by phone or seen clinically. 8 of these patients were still symptom free.

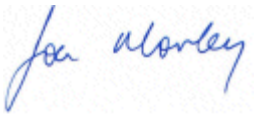
Reasons given for not following up: 1 out of the initial 26 patients experienced no relief of symptoms and chose not to continue the treatment and never returned for follow up.

The majority of patients that didn't have the retesting done felt that the absence of symptoms was evidence that the infection was fully treated and chose not to have the test redone as it was paid for out of their own pocket. Two patients moved abroad during their treatment.

Conclusion:
My personal experience with Matula Herbal Formula leaves no doubt in my mind as to its efficacy and safety. Although not included in my discussions, all of the patients experienced improved well-being, increased energy levels and increased vitality. Not one person complained of side effects. All of the patients had been on one or other pharmaceutical intervention, including some who had used standard triple-therapy. All had experienced a variety of side-effects on the pharmaceutical medication.

I have been very impressed with the Matula Herbal Formula, and I think further formal studies should be undertaken.

Yours Sincerely



Dr. Jon Morley MBChB