Medicinal maggot (fly larvae) production and maggot therapy treatment for chronic wounds such as diabetic and venous ulcers, but also traumatic, accidental and other chronic wound/ulcer healing wounds requiring debridement and infection control.

1. Project summary

The larvae (maggots) of Calliphorid flies (blowflies) have been used for the treatment of chronic and infected wounds for millennia. The use of medicinal maggots for wound care is known as maggot therapy, maggot debridement therapy, larval therapy, or biosurgery.

Bangladesh, like so many other countries, has a large chronic wound burden carried by the native Bangladeshi population but also the refugee population hosted in the country. We suggest that maggot therapy could make a big difference to the treatment of chronic wounds in the country provided a reliable and safe supply can be established and physicians are encouraged to treat their patients with maggot therapy.

This project is a collaboration between the Radiation Entomology and Acarology Division of the Institute of Food and Radiation Biology (AERE) and MedMagLabs, supported by the Department of Applied BioSciences, Macquarie University, Australia.

2. Background of the project

Recent history of maggot therapy

William S. Baer, an orthopedic surgeon, experienced first-hand the therapeutic benefits of maggots during the Great War. Upon returning to peace-time practice at Johns Hopkins Hospital in Baltimore, U.S.A., he revisited his war experience and commenced the first scientific and clinical studies on maggots and their use in wound therapy, in the first instance for the treatment of osteomyelitis [1]. His work spread like wildfire across North America and Europe, with over a thousand hospitals using maggot therapy to treat chronic wounds in the 1930s and early 1940s [2]. The rapid rise of maggot therapy was followed by an equally rapid decline in the 1940s with the advent of penicillin and other antimicrobials to treat wound infection. However, an increasing

chronic wound burden, coupled with the emergence of antibiotic-resistant microorganisms, has resulted in a revival of maggot therapy in research and clinical practice over the past three decades. These days, maggot therapy is most commonly carried out with the medicinal blowfly species Lucilia sericata and L. cuprina. Disinfected maggots are placed on the wound either directly or enclosed in a mesh bag. Most wounds treated with maggot therapy are chronic wounds such as diabetic ulcers, but acute wounds requiring debridement, such as infected traumatic and post-surgical wounds or burns, also respond well to maggot therapy.

Principles of maggot therapeutic action

Medicinal maggots consume dead or devitalized animal tissue and wound fluids. Maggots do not have mouthparts capable of cutting or biting pieces of solid food. While some food manipulation is achieved with a pair of mouth hooks, maggots need to liquefy their food outside their own body before ingesting this nutrient-rich broth [3]. In order to thrive in a microbe-laden environment of decomposing meat, maggots have also evolved ways to protect themselves from their microbe neighbors [4]. Maggots consumes and digest many microbes that are suspended in the liquefied necrotic tissue, and their enzymatic excretions and secretions contain powerful antimicrobial compounds. Finally, maggots have a scrambling feeding habit and constantly probe with their two mouth hooks. This disrupts and prevents microbial communities from forming biofilms that stimy wound healing and evade the immune system and antibiotic treatment. The maggot excretions and secretions also contain growth factors that stimulate the regeneration of blood vessels and the growth of granulation tissue, thus supporting the wound healing process [5]. These principles of maggot-assisted wound healing are under active investigation by numerous research groups and their efficacy has been confirmed both at the bedside and in vitro. The renaissance in maggot therapy over the past twenty years or so has largely taken place in developed countries with excellent logistics infrastructure such as in western Europe, North America and elsewhere.

3. Rationale of the project

There is a large and mostly unmet global need for affordable and efficacious wound care, despite modern-day medicine advancing at break-neck speed. Indeed, the tide of chronic wounds is rising. Modern lifestyle changes, particularly in low- and middle-income countries including Bangladesh, bring a rapid rise in non-communicable disease including cardiovascular disease, obesity, and diabetes, with the latter leading to diabetic ulcers at a lifetime incidence of up to 25% [6]. The

cities and urban centers are also struggling with ever-increasing motorization and poor road safety standards while local healthcare systems in Bangladesh is ill-prepared for the high traffic accident and injury burden. Likewise, due to population growth and urbanization in disaster prone regions of Bangladesh, the number of people exposed to disaster risk and related injuries is also growing. Due to changes in the nature of warfare there are now far more casualties among the civilian population than among fighting soldiers [7]. People in such conflict zones and complex humanitarian crises are often isolated and are unable to properly care for the many injured due to limited resources. Acute traumatic war injuries therefore lead to infected chronic wounds and ultimately a high burden of amputation and death. To make matters worse, antibiotic-resistant strains of bacteria are highly prevalent in conflict and Bangladesh environments due to their mis- and overuse in human and veterinary medicine. Irrespective of the healthcare setting patients find themselves in, chronic wounds make life difficult and people living with chronic wounds struggle on a daily basis with social stigma, isolation, poor self-image, depression, and high treatment costs [8]. With this growing wound burden and its social and socio- economic impact in mind, there is now the need for therapies that provide multiple wound care benefits and accessible, affordable, and effective wound care, regardless of where patients live or how wealthy they are. Contemporary care of acute and chronic wounds as it is practiced in resource-rich countries relies heavily on the availability of efficacious antibiotics, sophisticated devices, surgical intervention, and advanced wound dressings. However, in compromised healthcare settings there is often limited or no access to these resources and associated basic consumables, which means that wound care options that are relatively cheap, easy to use, and have multiple therapeutic benefits are required. One such treatment modality is maggot therapy. It is the deliberate therapeutic application of living fly larvae (maggots) to remove dead tissue, control infection, and promote wound healing.

In Bangladesh, treatment services for diabetic diseases are provided in various big cities including Dhaka. However, patients from different parts of the country come to Dhaka for treatment of chronic wounds/ulcers. Two major hospitals in Dhaka (i) BIRDEM General Hospital (Private) (ii) National Institute of Traumatology and Orthopedic Rehabilitation (NITOR) (Government) provide such treatment. Besides, some treatment is given in other private hospitals of Dhaka. Generally lower class, lower middle class, middle class and some upper-class patients are treated in these hospitals but most of the upper-class patients go abroad for better treatment. Some middle-class patients also go abroad for better treatment to survive by selling their properties to prevent

organ amputation. But lower class, lower middle class and most of the middle-class patients seek treatment in hospitals located in Dhaka. Those chronic wound patients end up selling their properties to pay for this expensive treatment. Having to make deductions they become destitute and have no system/source of income. As they have no support system even from the government. Then they lead a miserable life by begging and their entire family lives a dark life with no future. On the other hand, those who die are left with no means of support, their families and professions sink into a bleak life.

Current approach and to the treatment of methods and therapy of chronic wounds in Bangladesh

Physicians in Bangladesh have access to the following treatments for chronic wounds:

a) Conventional treatments: Conventional drugs and traditional formulations for the management of

pain, inflammation, infections, and accelerating healing have been developed.

b) Negative pressure VAC therapy (VAC),

c) Platelet-rich plasma (PRP) therapy,

d) Oxygen Therapy (1. Hyper Baric Oxygen Therapy, 2. Topical Oxygen therapy)

Many of the more advanced treatments are very expensive, time-consuming. Moreover, chronic wounds often require extensive antibiotic treatment which is a concern because many antibiotics lose their efficacy over time, which has been identified as a major threat to healthcare worldwide. Considering the above disadvantages, we need alternative treatment methods for wound care. Maggot therapy for treating diabetic and other chronic wounds will be a breakthrough treatment that is cost-effective, easy to perform, fast, with minimal side effects and is sustainable.

Medicinal Maggot Application and Maggot Therapy Dressing

The following figures explain the free-range application of maggot therapy first a practical example of successful maggot therapy (Figure 1) and then as a step-by-step guide to the process (Figure 2)

Practical example of maggot therapy treatment and wound healing

Figure 1. Case example of maggot therapy. Left: untreated extensive diabetic ulcer on right foot. Middle: Maggots applied to the wound, consuming necrotic tissue. Right: Healthy granulated wound bed after maggot therapy. (Photos by Parizad et al. 2021, https://doi.org/10.1016/j.ijscr.2021.105931 [7], CC BY-NC.)

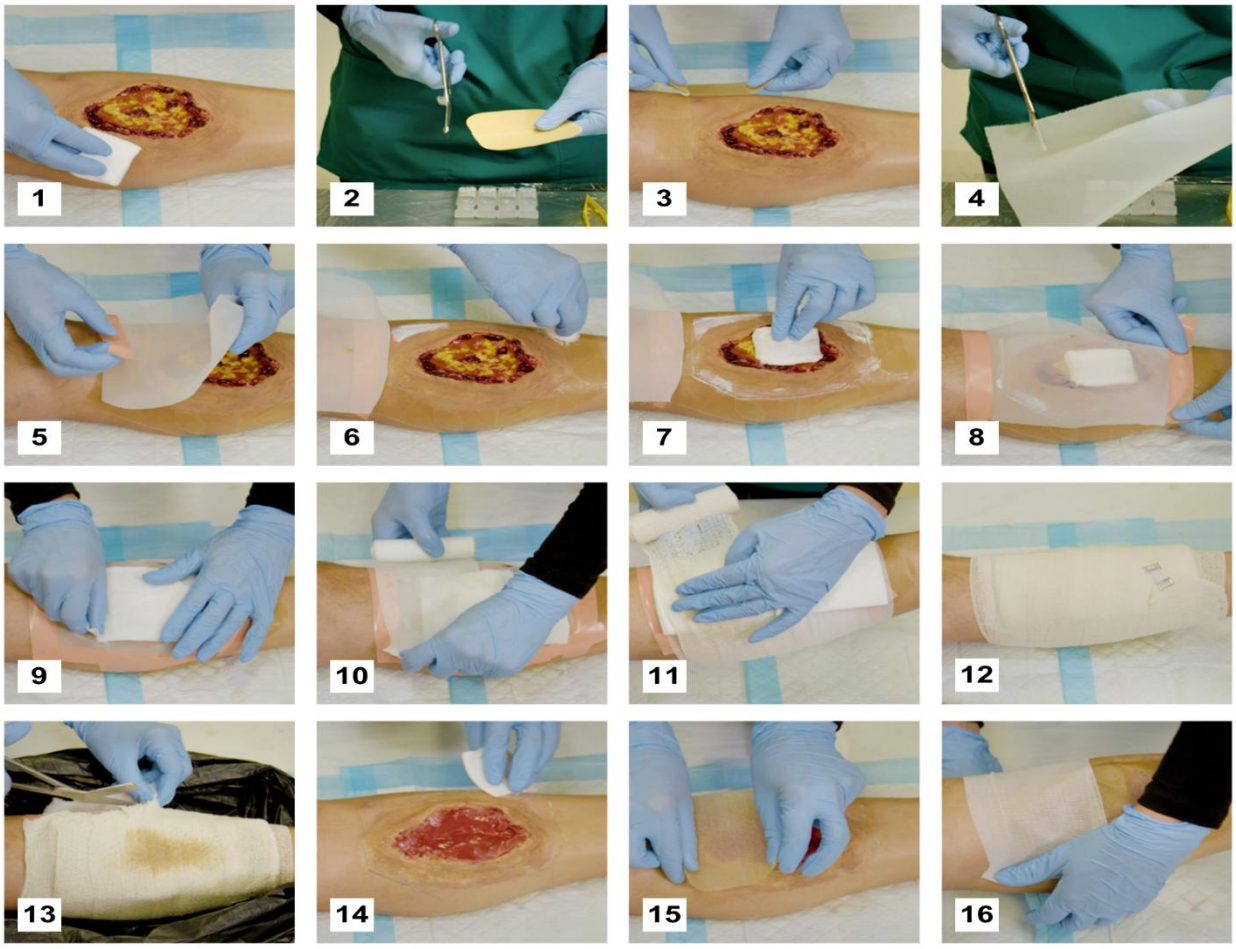

Figure 2. Treatment process for free-range application of medicinal maggots. 1) Clean the wound and peri-wound area with potable water or saline. 2) Cut hydrocolloid sheets into 2–3 cm-wide strips, perpendicular to the two pieces of plastic film covering the adhesive side of the hydrocolloid. 3) Place hydrocolloid strips around the wound and as close to the wound edge as possible. 4) Cut fine-mesh medical nylon or polyester netting to size. 5) Attach one side of the netting to the hydrocolloid border and flip it out of the way. 6) Apply zinc crème to protect the skin that is not covered by the hydrocolloid. 7) Apply loose medicinal maggots. If the maggots are supplied without a gauze pad, then use some water or saline to wash them out of their primary packaging onto a gauze pad which you apply directly to the wound. 8) Close the netting and secure it on 875. Medicinal Maggot Application and Maggot Therapy Dressing Technology the hydrocolloid strips using water-proof adhesive strips. Alternatively, you cause fast-curing glue to attach the netting to the hydrocolloid. 9) Place a moistened gauze pad on top of the netting. 10) Secure the gauze pad loosely with a bandage. 11) Place dry absorbing gauze pads on the bandage above the wound to absorb any exudate during treatment. Secure them loosely with another bandage. 12) The wound and dressing must be off-loaded during treatment to protect the medicinal maggots. Replace the outer dressings daily or when heavily soiled with exudate. 13) Removal of dressings and maggots is best done over a large, plastic waste bag to easily capture fast-moving maggots, dressing materials and water/saline you may use to rinse the wound. 14) Wash, wipe, suck or pick maggots off the wound. The most convenient method is determined by the wound morphology, the body region and experience of the clinician. Clean the wound and surrounding skin carefully. 15–16) If the wound is free of necrotic tissue, continue regular wound care, or else repeat maggot therapy. (CC BY-ND 4.0, MedMagLabs and Creating Hope in Conflict).

4. Literature review

The technical information presented in this research proposal has been largely sourced from A Complete Guide to Maggot Therapy: Clinical Practice, Therapeutic Principles, Production, Distribution, and Ethics, F. Stadler (ed.). Cambridge: Open Book Publishers, 2022

Specific attention has been paid to the following chapters of the book and other relevant publications.

Author, year	Major findings
Singh, N., D.G. Armstrong, and B.A. Lipsky, 2005	Preventing Foot Ulcers in Patients with Diabetes. JAMA. 293(2): pp. 217–228.
Khorram-Manesh, A., et al., 2021.	Estimating the Number of Civilian Casualties in Modern Armed Conflicts–A Systematic Review. Frontiers in Public Health. 9: pp. 765261–765261.
Ogrin, R. and K. Elders, 2022,	Living with a Chronic Wound, in A Complete Guide to Maggot Therapy: Clinical Practice, Therapeutic Principles, Production, Distribution, and Ethics, F. Stadler (ed.). Cambridge: Open Book Publishers. pp. 17–38.
Nigam, Y. and M.R. Wilson, 2022,	The Antimicrobial Activity of Medicinal Maggots, in A Complete Guide to Maggot Therapy: Clinical Practice, Therapeutic Principles, Production, Distribution, and Ethics, F. Stadler (ed.). Cambridge: Open Book Publishers. pp. 153–174.
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Sherman, R., 2022,	Medicinal Maggot Application and Maggot Therapy Dressing Technology, in A Complete Guide to Maggot Therapy: Clinical Practice, Therapeutic Principles, Production, Distribution, and Ethics, F. Stadler (ed.). Cambridge: Open Book Publishers. pp. 79–96.
Sherman, R., 2022,	Indications, Contraindications, Interactions, and Side-effects of Maggot Therapy, in A Complete Guide to Maggot Therapy: Clinical Practice, Therapeutic Principles, Production, Distribution, and Ethics, F. Stadler (ed.). Cambridge: Open Book Publishers. pp. 63–78.
Sherman, R. and F. Stadler. 2022,	Wound Aetiologies, Patient Characteristics, and Healthcare Settings Amenable to Maggot Therapy, in A Complete Guide to Maggot Therapy: Clinical Practice, Therapeutic Principles, Production, Distribution, and Ethics, F. Stadler (ed.). Cambridge: Open Book Publishers. pp. 39–62.

5. Aims and objectives of the project

Diabetic ulcers and accidental wounds are often fatal in Bangladesh and their prevalence is increasing. Every year, many patients have their legs amputated due to progressive and uncontrollable ulceration. Since life expectancy after diabetic foot amputations is very poor, many patients lose not only their limbs but also their lives. In the United States, UK, and Europe and some other countries, patients have access to maggot therapy for efficacious and affordable care and cure. The aim of this research collaboration is to test whether the production of medical-grade maggots is feasible in Bangladesh and whether local patients can be treated successfully with maggot therapy in the Bangladeshi healthcare system.

Specific project objectives

a. Adopt from, or co-develop with, MedMagLabs the protocols for the production of medicinal maggots at IFRB, Savar, Dhaka. This will ensure timely supply to the relevant doctors/hospitals participating in this project for treatment of diabetic and other wound/ulcer.

b. Perform a limited number of maggot therapy treatments in Bangladesh with patients suffering from a range of chronic wounds to test clinical feasibility of maggot therapy in this particular care setting and healthcare system.

c. Use the treatment trial to educate and sensitise medical workers (doctors, patients, nurses, and other staffs) and the general public about maggot therapy and its benefits.

d. Hold public awareness seminars or symposiums in different divisional and district towns about the application of medicinal maggot therapy and its benefit.

e. To test whether maggot therapy can reduce medical expenses for the treatment of diabetic and other chronic wounds.

f. Implementation plan for the introduction of maggot therapy services to Bangladesh

Long-term objectives

a. Delivery of affordable, efficacious, and reliable maggot-assisted wound care to patients in Bangladesh to prevent the loss of limbs and lives, speed up healing, and reduce the health expenditure of patients and the public healthcare system.

b. Preventing patients from having to go abroad and spend foreign currency for efficacious wound treatment.

c. Effective management of complications arising from chronic diseases such as diabetes, cardiovascular disease, and cancer to maintain a productive and resilient workforce.

6. Methodology

This research project will be largely conducted by colleagues from AERE-READ and BIRDEM General Hospital with support and co-supervision from Dr Frank Stadler from MedMagLabs and Macquarie University, Australia.

There are three parts to this study:

1) **Trial and/or development and assessment of medicinal maggot production protocols and the capacity to produce high-quality medicinal maggots in Bangladesh.**

Medicinal maggot production, quality control, timely maggot supply, and relevant research will be performed in either or both, the blowfly mass rearing plant under Radiation Entomology and Acarology Division (READ), IFRB, AERE, Ganakbari, Savar and Cox's Bazar blowfly production plant.

A critical feature of successful maggot therapy programs is the ability to ship medicinal maggots from a central production facility to far reaches of the country to enable care for all patients that could benefit from maggot therapy. It will therefore be helpful to test whether medicinal maggots can be produced in Dhaka and sent reliably to Coxes Bazar for treatment or vice versa. Such a transport trial will be included in this study.

The production trial will in the first place implement protocols and production technology provided by MedMagLabs and, if necessary, will explore the need for adaptations of this technology to suit Bangladeshi conditions.

2) **Clinical study to assess healthcare system capacity to treat patients successfully with maggot therapy.**

   The clinical study will be conducted at BIRDEM General Hospital, Dhaka or other related hospitals with in- and outpatients suffering from chronic wounds of varying etiology, following protocols for similar studies already published in the literature. The aim is to treat a balance of patients with varying wound etiologies with maggot therapy. However, the most important participants for public health reasons will be those patients with diabetic ulcers and other infected chronic wounds. The study protocol will follow strict ethical standards and only patients who have received full treatment information and give informed consent will be treated. Our initial aim is to treat approximately twenty to thirty patients with maggot therapy and document the treatment progress for subsequent data analysis and evaluation of intervention. We intend to publish the outcome of this study in the scientific literature.

3) **Education and sensitization of healthcare workers and the general public about maggot therapy and its benefits.**

As maggot therapy will be a new and unusual therapy to Bangladesh, it will be critical that the implementation project also includes an education and sensitization campaign for healthcare workers and the general public, including patients.
This is best achieved with treatment case reports, targeted lectures and seminars to stakeholder groups, effective printed and online / social media information products, and the use of local print, TV, radio, and online media to share our work and to distribute information about maggot therapy widely.
We will work closely with Dr Stadler from MedMagLabs on an education and training program. MedMagLabs has already produced highly effective culturally sensitive education and training resources which we will be able to utilize (https://medmaglabs.com/creating-hope-in-conflict-treatment-manual/).

7. Outcomes of the project

Provided the project can demonstrate the feasibility of medicinal maggot production and maggot therapy treatment in Bangladesh, the subsequent professional implementation of maggot therapy has the potential to transform chronic wound care in the country.

- Successful implementation of this project will provide a guideline for the production of clinical-grade medicinal maggots in Bangladesh and a good understanding of the enablers and limitations of the Bangladeshi medical supply chain.

- Middle class/lower middle class/lower class patients will get treatment at low cost thus saving limbs and lives without losing their wealth to meet the medical expenses.

- Maggot therapy will lead to a reduction in the use of antibiotics which, in turn will lead to better antimicrobial stewardship and the protection of antibiotics from the development of antimicrobial resistance due to over- and mis-use.

- There will be fewer patients seeking treatment abroad which will have positive financial impact on the country's economy.

- This new medical technology will require close collaboration between the maggot producer and the medical profession, including medical research. This will have a positive impact on research and development in Bangladesh with a potential for specialized research programs in medical entomology and new job creation.

8. References

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8. Collaboration:

We will collaborate with Dr Frank Stadler, a recognized expert in medical maggot therapy and wound healing in Australia. Already Dr Frank visited in Bangladesh on that purpose and he agreed with us collaborative works and already sent us his collaboration guideline which is attach here.

Dr Stadler. Adjunct Fellow at Applied BioSciences in Macquarie University, founder and director of MedMagLabs (www.medmaglabs.com), a startup with the purpose of producing and supplying medicinal maggots in Australia and elsewhere, author and editor of A Complete Guide to Maggot Therapy https://www.openbookpublishers.com/books/10.11647/obp.0300.

Contribution of Dr. Frank Stadler to this project. Dr. Frank Stadler will contribute as an international expert in maggot therapy. His role will include protocol validation, guidance on sterile larval production and application, training support for healthcare professionals in Bangladesh, and co-authorship of scientific outputs. His previous work on maggot therapy will strengthen the scientific and translational outcomes of this project.

f.stadler@medmaglabs.com Wed, Nov 5, 3:57 AM

to me

Dear Mosharraf

I hope your little family is doing well.

This is exciting news. I like your motivation and initiative. If you stick to my guidelines, you should have no trouble producing maggots that are safe for patients. I agree that you should set up you medicinal maggot laboratory in separate rooms from your SIT stock and facilities. You can do all colony maintenance in one room (adults and maggots) but the production of the medicinal maggots (disinfection, rearing, packaging etc.) will need to take place in a separate clean room perhaps even in a different building – e.g. the laboratory space where you stored your butterfly specimens.
With our current arrangements and in the absence of a Memorandum of Understanding, I am happy to support you with the implementation of the online guidelines and manuals you already have.

Ideally, I would like to have a Memorandum of Understanding in place before I give you expert advice beyond the information that is in the guidelines. I am confident that the MedMagLabs user manuals and treatment guidelines for compromised healthcare settings will allow you to produce safe medicinal maggots, but I would be able to work with you more closely and share advanced production expertise if such an MoU was in place.

Please note that first and foremost, I want you to succeed – but once you succeed, I would like to benefit from it a little, too.

So, we have three options.

1. **MoU.** We enter into a Memorandum of Understanding that sets out the way we collaborate:
    a. Equal partnership
    b. Transparent and responsive communication, including clinical and financial success and difficulties
    c. Goals for establishment of a joint venture business
    d. Confidentiality agreement

    Under such an MoU agreement, I would
    - freely share my confidential production know-how with you so you can establish a professional medicinal maggot laboratory within your financial means;
    - work with you to attract business grant funding to support the establishment of a professional lab facility and operations in Bangladesh.

2. **MedMagLabs Hope In Conflict production guidelines only.** If you were not willing or able to enter into a Memorandum of Understanding, I will not be able to freely share all

my expertise. However, you should still seek to establish a medicinal maggot laboratory. Absolutely, yes!
The guidelines and manuals provided on medmaglabs.com will allow you to produce safe medicinal maggots that will be of great benefit to patients in Bangladesh. However, your operation would not meet the regulatory requirements regarding quality assurance and production methods that would be expected for medical manufacturing in a modern healthcare system or for supply of medicines to such markets. In the short term this is not a big issue. Here in Australia, we are still negotiating with our regulator how to best regulate maggot therapy. So, you in Bangladesh should not feel bad about lacking a regulatory process.
Initial clinical treatment can be done with a hospital's ethics unit approving the treatment under a clinical trial arrangement. I don't know how this is exactly administered in Bangladesh but you should be able to find out from Dr Morshed.

3. **Step-wise process, first trialling the Hope in Conflict production guidelines, followed by a MoU and joint venture.** I am in favour of this option. It combines the two above in a step-wise manner.
    a. **Step 1**. You follow the online guidelines and user manuals to commence your medicinal maggot production. You practice enough so you can produce a regular supply of medicinal maggots for local use i.e. for one or two hospitals in Dhaka only.
    b. **Step 2.** You work with Dr Morshed and other clinicians. They administer maggot therapy under permission from the hospital's ethics board. You treat one or two patients first and monitor the treatment carefully. If all is well, you continue and make the treatment available to more patients. You carefully document all cases and treatment outcomes so that the results can be shared with the Ministry of Health, investors, and via journal publication. Your documented success in implementing the Hope in Conflict guidelines would be a fantastic outcome for MedMagLabs and the international development community. I think it would allow us to raise grant funding for the establishment of a professional production laboratory in Bangladesh.
    c. **Step 3.** In the meantime, and encouraged by successful treatments, we can enter into an MoU.
    d. **Step 4.** We raise funding to establish a commercial production facility that meets all regulatory requirements.
    e. **Step 5.** Produce and supply medicinal maggots to all of Bangladesh and perhaps neighbouring countries.

Mosharraf, see what you think about my suggestion. I suggest you discuss it with your team and get back to me.

Look forward to hearing from you.

Memorandum of Understanding

Parties	**Similitude Pty Ltd T/A MedMagLabs (MedMagLabs)** ABN/ACN [address] Party 2 Party Address
Commencement Date	The date the last party signs this MOU
End Date	End date

1. Background

1.1 **Your business**
1.2 **The party**
1.3 **Purpose - overview**
1.4 **Objectives – overview / summary**

2. Term

2.1 This MOU commences on the Commencement Date and, unless terminated earlier in accordance with its terms expires on the End Date.

2.2 A Party may terminate this MOU with 30 days of notice to the other Party.

2.3 Termination of this MOU will not affect the continuation of any other agreement in force at the time of termination.

3. Purpose

3.1 The purpose of this MoU is to formalise the mutual willingness of the Parties to work together on the business objectives of [company] as described in Section 1 and to set out the format of this collaboration.

3.2 The goals of collaboration and any activities involved … here we can be as detailed as you like with sub-clauses etc.

4. Confidentiality and Publicity

4.1 The parties acknowledge that information disclosed by one Party to the other during the activities agreed upon in this MOU may be confidential and unless required by law must not be disclosed to a third party except with the prior written consent of the disclosing party.

4.2 Neither Party may make any public announcement, publish any advertisement or allow any press release in any manner, medium or forum concerning this MOU without the prior written consent of the other Party.

4.3 The Parties must not use the name or logo of the other Party without that Party's prior written consent. The consent provided may be subject to any conditions.

5. Further Agreements

5.1 This MOU sets out the purpose and terms of engagement between the Parties for an initial period of no more than x months (end date). It is expected that this period is sufficient for both Parties to consider their professional relationship.

5.2 Before the end of this MOU, or at any time during the agreement period, the Parties may reassess the collaboration experience and the terms and conditions …. List specifics as required

5.3 Specific agreements and conditions

5.4 Specific agreements and conditions

5.5 Specific agreements and conditions

5.6 The specific terms for either renewal of this MOU, remuneration (in case of employment), or co-ownership are not subject to this MOU and will be negotiated once the respective decision has been made.

5.7 Etc.

6. Intellectual Property

6.1 Nothing in this MOU is intended to affect the intellectual property (IP) rights or interests of a Party with regard to the IP that was created before this agreement takes affect or after it ends, or such IP that is created outside of the remit of this MOU.

6.2 All new IP created by activities agreed to in this MOU during the period of this MOU is the property of [company]. Clause 4.1 applies to this IP regarding disclosure and confidentiality.

7. Managing the Parties Relationship

7.1 For the term of this MOU, the Parties agree to the following:

7.1.1 Specify conditions if applicable

7.1.2 Both Parties are free to raise any additional matter regarding the relationship between the Parties and roles and responsibilities at any time. Such discussions will be held in good faith and may result in the amendment of this agreement or the negotiation of a new agreement.

7.1.3 For the duration of this agreement, [party] will not enter into any professional relationship with another organisation concerned with [specify exclusivity conditions].

8. General

8.1 Except for clauses 4 (confidentiality and publicity) and 6 (intellectual property), this MOU is not legally binding upon the parties.

Execution

Signed on behalf of **[company]** by its authorised officer:	Signed **[Party]**:
_____	_____
Signature	Signature
Print Name Company	Print Name
Date:	Date: