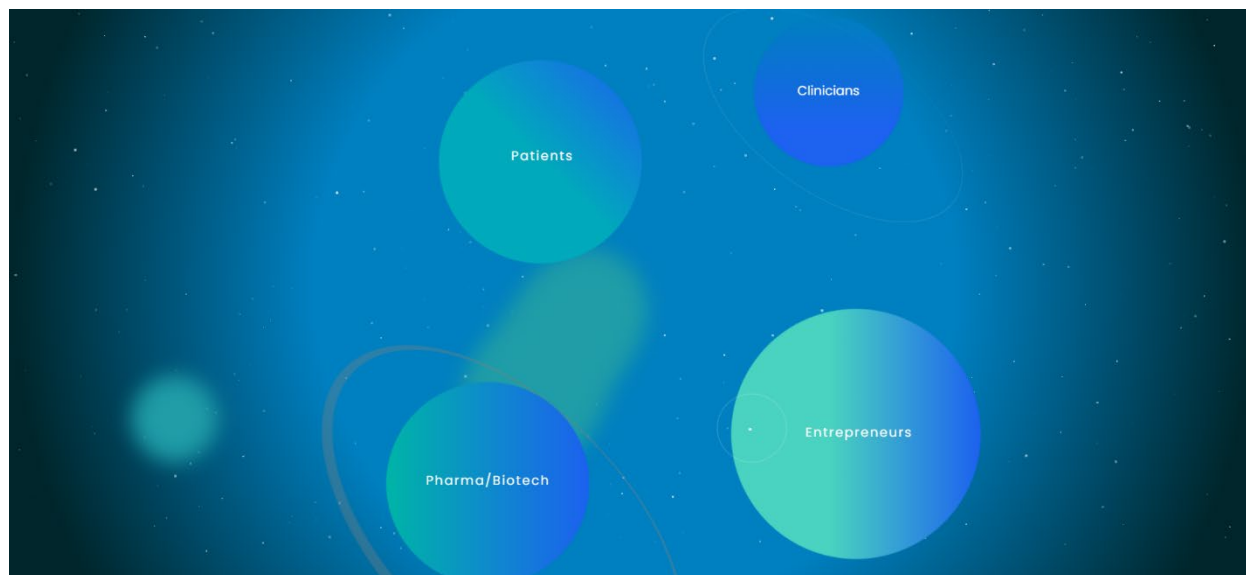


The BioLara Pathway

Enabling Awareness, Access & Affordability

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Anatomy of an Ecosystem

We would all acknowledge that Jigsaw puzzles are curiously enigmatic

Pieces which at first appear to have no correlation ultimately end up being indirectly connected.

They are irregular and never seem to align at the outset.

Solving a puzzle with a mathematical formula or a scientific theory would likely be futile

Rather the big picture gradually emerges through a series of short iterative explorative exercises that provides **snapshots of significance**

Multiple **smaller themes** start to emerge which only when correctly bridged by some **critical connectors** enable us to ultimately realize the **larger vision**



Real world ecosystems embody these fundamental principals only with additional layers of complexity driven by their fluid and evolving nature. There are multiple internal and external forces which constantly change the status quo and shift relationships. In the era of globalization these dynamics become all the more intricate. The most

significant challenges we face today relate to how we interpret and operate in these environments whether it be healthcare, financial, trade or climate change.

Healthcare in itself is a seemingly extensive and elaborate web of relationships between stakeholders along the value chain that appear to be linear but are in actuality more of a matrix.

The BioLara Pathway seeks to unravel this web by applying the analogy of a Jigsaw puzzle

Step 1: The Big Picture

With a jigsaw puzzle we have the advantage of knowing the end objective by the image on the cover. In most real-world scenarios we must define our vision.

BioLara Pathway Vision

To facilitate equitable access for advanced cancer focused solutions globally

Relevance

Despite our enduring efforts to conquer cancer with rapid advancements in science and cancer biology with a plethora of emerging tools and technologies the most optimal path often times continues to be an enigma. Exciting new technologies in the realm of immuno-oncology, gene editing, CAR T-cell therapy amongst others offer us great hope that patient outcomes are being significantly improved. That some cancers may actually be in long term remission and many others managed akin to a chronic disease while enabling a reasonable quality of life.

The ongoing challenge however continues to be how we can best make sense of the treatment options, stakeholders and technologies at play which is daunting even for the most well-trained professionals.

Step 2: Snapshots of Significance

In order, to be able to fully benefit from these advances fundamental questions must be addressed that are of core relevance for patients and **more so for those in developing nations:**

Patient perspective

- **Awareness:** What are the diagnostic and/or treatment options currently available?
- **Access:** Which option is the most optimal for a given specific circumstance and is this available for the patient?
- **Affordability:** Is this affordable?

Although these aspects are of great significance to care providers and patients they are also paradoxically of consequence to entrepreneurs and pioneers who are at the opposite end of the value chain. Oftentimes they are not given adequate thought and consideration early on in the product lifecycle. The **3 A's** are therefore also relevant to those who are spearheading the development lifecycle in the following context:

Entrepreneur's perspective:

- **Awareness:** What are mechanisms and resources available to us globally?
- **Access:** Of all the potential options for collaboration which is the most optimal for our specific circumstances to enable efficient product development and market adoption beyond the traditional go-to markets?
- **Affordability:** With the limited resources at our disposal is this strategy feasible?

In attempting to address the **3 AAA's** for both groups of stakeholders at opposite ends of the healthcare value chain you will in fact be able to create immense benefit for both parties that will also expand to other stakeholders such as big pharma, mature technology companies, insurance companies and allied professionals. In an ecosystem every component is integrally linked to the other even though the relation may not at first be apparent. However, when synergy is amplified through specific mechanisms the yield starts to amplify while redundancy is diminished.

The BioLara Pathway was developed to specifically address these issues.

Step 3: Subthemes or Key Initiatives

Biolara initiatives were defined by striving to address these questions.

In our current paradigm there is fundamental disconnect between all of the stakeholders who contribute along the patient care continuum which is actually disadvantageous for all of the stakeholders.

For ex. patients in a developing country may not have access to a novel diagnostic test. The start-up may ultimately offer it at the same price as in the West or think that they are providing enough incentive by providing a 20% discount. This pricing strategy will likely yield negligible utilization which thereby limits market adoption and the total revenue captured. Instead by controlling the cost of goods sold in such regions substantial market adoption and profit maybe feasible by incorporating this in the strategic plan from the outset.

Rather than through random alignment of stakeholders through cohorts at BioLara we have developed a framework to help address the **3 A's** through a series of key Initiatives.

Key Initiatives to drive synergies

1. The Patient care continuum serves to enable **access**



Technology is being harnessed to prevent, evaluate, diagnose, treat and monitor cancer.

BioLara partners with the most cutting-edge start-ups along this spectrum to forge an integrated care pathway that can be accessed through a seamless virtual interface globally by clinicians, patients and service providers. By carefully evaluating the start-ups and integrating those that meet certain specifications we are in essence creating **awareness** amongst providers and patients and providing means of access to these solutions.



2. R& D partnering program allows cutting-edge tech to be developed leveraging infrastructure and resources in developing nations such as India. By reducing overheads and enhancing efficiency it potentially enables biotech companies to price products more affordably or obtain insight for differential pricing in varied geographies. In doing so many more patients might avail more reasonably priced solutions that enables **access and affordability**.

3. Working groups: Directed workings groups of patients and physicians enable **greater awareness** and dissipation of information and programs. Interdisciplinary groups are also critical to cross-pollinate ideas. E.g., Pharma companies need to inform physicians and patients about upcoming therapies and patients who have a specific cancer and or mutation may require additional information from their peers, physicians or the industry. This need is further amplified in regions of the world where large tertiary care institutes are few and far between. Especially in some of the more remote regions. Biolara provides structured working groups for subtypes of cancer and biomarkers.



Step 4: Critical Connectors or Foundational Anchors

As in a puzzle seemingly innocuous pieces maybe the most critical for connecting the themes and ultimately completing the big picture. Akin to this, Bio Lara's primary value lies in our **"critical connectors"**.

VCR Park: that offers physical infrastructure, resources and multidisciplinary expertise that drives the R&D partnering, translational and its associated training programs

Lumiseek Platform: provides a visually intuitive virtual platform to enable the Patient Care Continuum and Working Groups.

EMCIF: enables the Patient Care Continuum and R&D partnering programs by providing bridge funding for global alliances to further collaborative research and market adoption



Metrics of Success

BioLara is the amalgam of these **subthemes and critical connectors** and enables us to create a holistic and centralized mechanism that can propel our key Initiatives in a resource efficient, agile and scalable manner.

Ultimately, the utility of the Pathway will be determined by specific measures of our overall impact forged through bonds of trust and capability. By the number of patients whom we support, the physicians we empower with knowledge of the available technology and resources. As well as by the number entrepreneurs who begin to think of synergies that they can leverage with the developing world earlier on in their product development lifecycle. BioLara intends to track these metrics at regular junctures and provide means for iterative evaluation.

Holistic Harmonization

Hindsight is usually 20-20! Akin to a successfully completed puzzle, The BioLara pathway may now seem to be intuitive and straightforward. But in reality we have already endured many cycles of iterative exploration that are typical of building a puzzle. We ran into “dead ends” until at some juncture the threads seem to almost magically align.

The most important aspects are to stay focused towards the overarching vision while striving to understand the **sub themes**. Then persistence and the quest to find the **critical connectors** to enable the pathway.

As a testament to this narrative, it took us more than 5 years for our team to outline and develop the pathway, a large portion of which was dedicated to developing the critical connectors of **VCR Park, Lumiseek Platform and EMCIF**. However, they will continue to evolve as will the scope and scale of our initiatives in response to the changing environment of our real-world healthcare ecosystem.

The **critical connectors** are essential to facilitate scale-up and harmonization of the **key Initiatives**. However, through our journey, which has been amorphous, gradually progressive and above all immensely gratifying there was the realization that mechanisms such as these can only be brought to fruition by well-meaning passionate people.

We believe our greatest value stems from our constant endeavor to search and bond with those who are organically driven by a synergistic mission. This expanding cohort of accomplished professionals with diverse expertise within and beyond our core team are aligned to drive and nurture the BioLara Pathway across constraints of knowledge, resources, and geography.