

The IPF Catalyst Challenge will award a total purse of \$1,000,000 for the development of big ideas that improve the quality of life for patients with Idiopathic Pulmonary Fibrosis (IPF). The Challenge is open to nonprofit agencies and for-profit ventures, but you may also participate as part of a collaboration between organizations. We welcome teams with public partners, but prefer that government entities are not the primary organization on the application.

Your team will be asked to explain a problem and a solution related to a specific need of IPF patients. The IPF Catalyst Challenge is designed to invite a broad range of big ideas to the table, and you may choose to focus your submission on one of the categories below.

-  **EARLY DIAGNOSIS & DETECTION**
-  **PATIENT EDUCATION & ENGAGEMENT**
-  **OXYGEN IMPROVEMENT**
-  **IMPROVING THE CARE CONTINUUM**
-  **OTHER**
This category is for any ideas that may not fall into the above categories, but you believe could positively impact the quality of life for patients and caregivers.

1

EARLY DIAGNOSIS & DETECTION

THE NEED

Detect IPF earlier and create a smoother path to care

On average, patients are diagnosed years too late due to a trial-and-error approach. This leads to “patient harm” — lost time as they’re treated for the wrong conditions. The current resources and legacy systems that delay diagnosis are ripe for innovation, technological advancement, and financial investment.

WHY IS THIS IMPORTANT?

Patients could experience a smoother process to identify what’s wrong — minimizing the flurry of tests, incorrect treatments, and growing anxiety of trying to rule everything else out.

If diagnosed sooner, patients increase their odds of slowing the progression of IPF before it’s too late, and of being eligible for a lung transplant or effective therapeutic interventions.

CURRENT FRUSTRATIONS

1. Due to the nature of symptoms, patients mistake their IPF for old age, seeking care too late.
2. Patients experience other chronic illnesses that seem more serious, when in reality IPF may be more life-threatening.
3. Patients are diagnosed years too late, with their disease progressing past the point of slowing and lung transplant eligibility.
4. Community physicians do not have specialized training to diagnose IPF, so patients may never find themselves at an IPF-specialized center.
5. Patients have many misconceptions about their condition and oxygen therapy from misdiagnosis that has prevented them from getting the right care.

2

PATIENT EDUCATION & ENGAGEMENT

THE NEED

Educate and ready patients for the unknown

After a confirmed diagnosis, patients scramble to grasp its seriousness while families try to adjust and physicians strive to set clear expectations. This situational spiral prevents constructive planning and preparation for all involved.

WHY IS THIS IMPORTANT?

Patients could receive practical and direct information about IPF, feeling more empowered over their disease.

By knowing what to ask, patients could better advocate for themselves.

Patients could have a greater understanding of their options and feel more prepared for how the disease progresses in varied stages, minimizing the feeling of “crisis” as their oxygen needs increase.

CURRENT FRUSTRATIONS

1. Patients feel overwhelmed upon being diagnosed, and are unable to process how it impacts their future and what to expect.
2. With the lack of a cure, patients search for their own solutions—leading to scams or misdirected guidance.
3. Without understanding their serious need for oxygen, some patients ignore their oxygen therapy in order to stay active and avoid pity.
4. Families are caught off guard when patients end up in the ICU, not realizing the severity of the disease until it's too late.
5. Families do not want to start advanced planning at diagnosis, but should be encouraged to start the conversation early.
6. Patients try to better advocate for themselves, but are uncertain of all available options or questions that they could and should ask.

3

OXYGEN IMPROVEMENT

THE NEED

Generate insights on IPF by collecting real-time data through oxygen therapy

Today's standard practice involves clinical visits and testing every 3-6 months, along with prescribed oxygen. Because the disease progresses unpredictably, understanding the time between visits and how oxygen supports the patient beyond the clinic could unlock new information about IPF. A smarter oxygen therapy system and collecting real-time data could allow clinicians to provide more responsive care to their patients.

WHY IS THIS IMPORTANT?

Patients could feel more reassured knowing their care providers can provide more responsive care beyond check-ins.

Patients could feel in control over their disease by having more transparency of their progress, without actively measuring their oxygen supply.

This could inform patients when it's time to get care or a prescription for oxygen therapy.

CURRENT FRUSTRATIONS

1. Oxygen systems on the market provide poor feedback on how much oxygen is being used and how much is left, forcing patients to "get used to it" from the weight of the container.
2. Patients have limited choices for their oxygen device, which is determined by their insurance and the locally-contracted oxygen vendors, and some are without the option for a portable concentrator.
3. Medical oxygen devices are too heavy to carry around while staying active and are not user friendly.
4. The quality of the customer service and support that patients receive from their oxygen vendors greatly influences their experience living with IPF.
5. Patients who have varying oxygen needs struggle to manage their supply and are not always getting the right amount. Many wish they knew how to efficiently use their oxygen supply to avoid their fear of running out.
6. Patients are dependent on vendors to supply and deliver oxygen when on liquid or compressed gas. Some struggle to reach a vendor when they have urgent oxygen questions.

4

IMPROVING THE CARE CONTINUUM

THE NEED

Make quality of life better in the advanced stages of IPF

While the disease progression is unpredictable, everyone with IPF experiences eventual exacerbations, leading to higher oxygen needs, decline in physical abilities, and an increase in anxiety. With more advanced oxygen products and more human services, these families can be supported with a more comfortable and meaningful experience in the late stages of IPF.

WHY IS THIS IMPORTANT?

Patients could be more empowered to live out their final years at home with devices that support them through their final days.

Patients could feel more at peace with their decisions, knowing they're leaving behind their legacy and that their families are supported and prepared.

CURRENT FRUSTRATIONS

1. Without specific IPF products and services, patients and caregivers have to find their own solutions to make life manageable. Many are hopeful that their IPF will progress slower than expected.
2. As the disease progresses, patients require a higher flow of oxygen, which many portable and even stationary devices cannot support.
3. Patients, along with their caregivers, struggle to stay active when their oxygen requirements reach extreme levels. It becomes difficult to manage, leading to depression or feelings of isolation.
4. Family caregivers feel physical and emotional burdens when taking over responsibilities that the patient can no longer manage and feel guilty as the patient's health declines.
5. Patients complain that physicians don't set clear expectations on the disease's final stages, while family caregivers admit to avoiding those discussions until it's too late.