

## BiliScreen (New Application) A Machine-Learning Algorithm to Detect Pancreatic Cancer at the Early Stages

Rahul Runja<sup>1\*</sup>, Thimmidi Yugandhar<sup>1</sup>, Priyanka Maggidi<sup>2</sup>

<sup>1</sup>Bharath School of Pharmacy, Jawaharlal University of Technology, Hyderabad, India

<sup>2</sup>Department of Pharmacy, Pullareddy Institute of Pharmacy, Jawaharlal University of Technology, Hyderabad, India

### INTRODUCTION

It is great news in the emergence of the technology into science that researchers from the University of Washington have developed a smart phone app called BiliScreen that can detect pancreatic cancer at the early stages. A mass build-up of bilirubin found which causes the eyes and skin to yellow is one of the major early indicators of the disease. This app calculates the amount of bilirubin in the whites of a person's eyes. The user must capture a selfie and a machine-learning algorithm - a type of artificial intelligence - performs the diagnosis.

The research has already known that the initial indications for the pancreatic cancer are eyes and skin to yellow.

### BiliScreen FUNCTIONING

Pancreatic most cancers have one of the worst survival charges among all kinds of most cancers due to the fact its signs and symptoms occur later into the development of the disease. One of these signs and symptoms is jaundice, the yellow discoloration of the pores and skin and sclera because of the accumulation of bilirubin with inside the blood. Jaundice is handiest recognizable to the bare eye in extreme stages, however a ubiquitous check the use of pc imaginative and prescient and system gaining knowledge of can hit upon milder kinds of jaundice. We recommend BiliScreen, a telephone app that captures snap shots of the attention and produces an estimate of a person's bilirubin level, even at ranges usually undetectable via way of means of the human eye [1]. We check low-value add-ons that lessen the results of outside lighting:

(1) A 3D-revealed container that controls the eyes' publicity to mild.

(2) Paper glasses with coloured squares for calibration.

### POTENTIAL BENEFITS OF THIS APPLICATION

One of the underlying dream objectives was that this would be the sort of thing that anybody can download and

utilize. There is this idea that we can make a fortunate determination that a doctor would regularly miss. Simultaneously, we must watch out. Such an application could lead individuals to derive that they might have disease; however they could simply have jaundice because of another ailment. I likewise need to accentuate that we are making an effort not to supplant doctors with this application. We need to work with them. Perhaps the application would work like a medicine — the doctors and medical staff needs to circle back to a patient yet can't see the person in question every day in the workplace, so the application could be endorsed. They could utilize the application periodically and screen bilirubin levels. Another potential use is for illness the executives. On the off chance that a patient has pancreatic malignancy, the application could assist with observing their condition to and guarantee treatment is working. This could replace blood draws for these patients [2].

### POTENTIAL OF SMARTPHONE TECHNOLOGY FOR CANCER DETECTION AND DIAGNOSIS

Specialists won't structure a blood draw suddenly; notwithstanding, anybody can download an application and get tried. A great many people as of now have cell phones, and there is a comfort factor that makes testing considerably more inescapable. Pancreatic malignant growth has an extremely low endurance rate since it frequently is identified exceptionally late. Having the option to make screening perhaps more inescapable and open could be incredible. In any case, the issue of how individuals decipher the information is a worry.

### REFERENCES

1. Mariakakis A, Banks MA, Phillipi L, Yu L, Taylor J, Patel SN. BiliScreen: Smartphone-based scleral jaundice monitoring for liver and pancreatic disorders. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies. 2017;1:1-16.2.
2. <https://www.healio.com/news/hematology-oncology/20180122/smartphone-app-helps-screen-for-pancreatic-cancer>

Received October 05<sup>th</sup>, 2021 - Accepted October 20<sup>th</sup>, 2021

**Correspondence** Rahul Runja  
Bharath School of Pharmacy,  
Jawaharlal University of Technology,  
Hyderabad, India  
**E-mail** rahulbinny@gmail.com