



A Smart Mouth Guard To Eliminate Guesswork in Speech Therapy.



(PATENT PENDING)



WenChing Li
Founder & Software
Engineering



Qasim Sikander
Carle Illinois College
of Medicine



Wei-Yun Xu
Engineering



**Mark
Hasegawa-Johnson**
Lead Researcher, Speech
Accessibility Project
UIUC ECE Professor



Ludo Max
Professor
Speech and Hearing Sciences
University of Washington

No objective
measurement
in speech therapy.

OTHER PRACTICE USES OBJECTIVE MEASUREMENT TOOLS



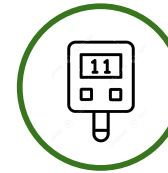
THERMOMETER



PULSE OXIMETER



BLOOD PRESSURE
MONITOR



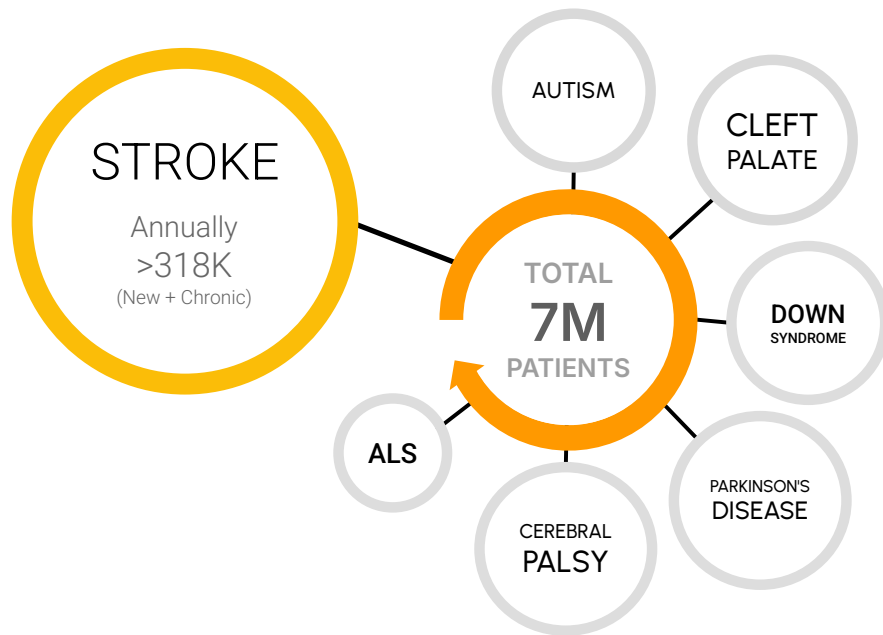
GLUCOSE METER



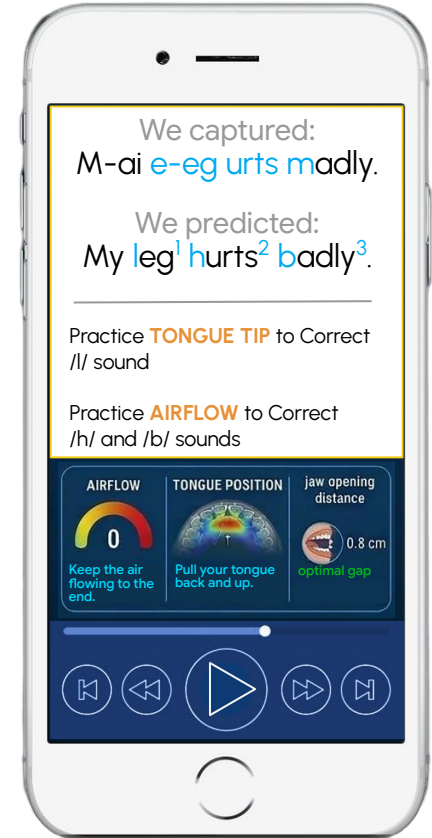
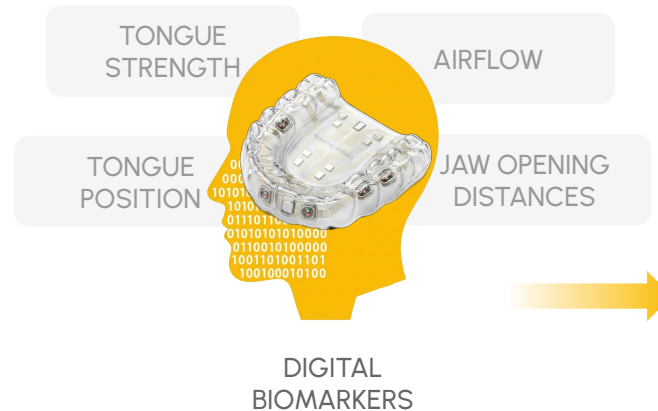
SPEECH THERAPY

EARS

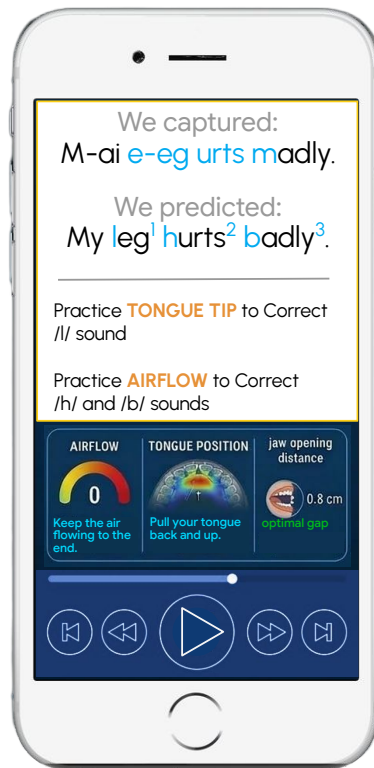
3.6M stroke survivors
require speech therapy¹².
Annual **>318K** new cases
drive **\$238** million in U.S.³.



Accenlent's proprietary
Digital Precision
AI Platform brings
 Continuous and
 Remote Monitoring to
 Speech Therapy.



Numerous papers prove tongue movement drives pronunciation¹, and strength drives swallow function²; we track and monitor it digitally.



CLIENT APP

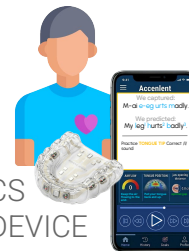


SPEECH THERAPIST APP

Source: 1. Evaluation of a Wireless Tongue Tracking System on the Identification of Phoneme Landmarks (PMC8034549); 2. Tongue-to-palate resistance training improves tongue strength and oropharyngeal swallowing function in subacute stroke survivors with dysphagia (PMID: 27883209)

Scale patient capacity
and profitability
WITHOUT increasing
in-person visits.

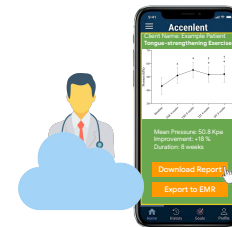
1. AFTER IN-CLINICS
THERAPY, SETUP DEVICE



2. REAL TIME SUPPORT &
CONTINUOUS GUIDANCE

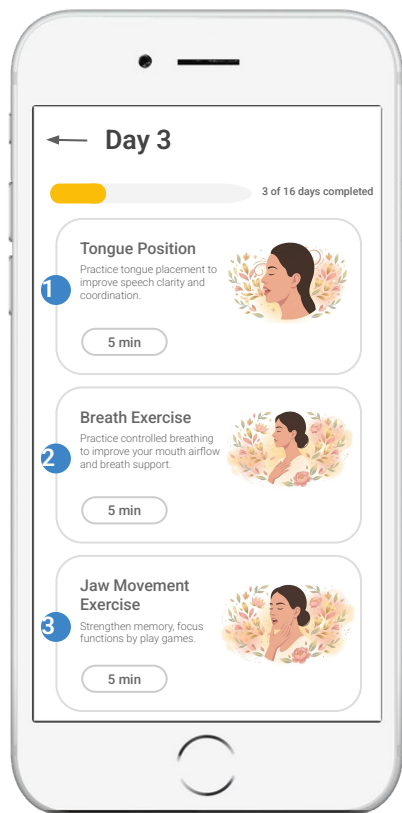


4. WITH ONE CLICK, FILE
MORE SUCCESSFUL
INSURANCE CLAIMS BY
ATTACHING PROGRESS
REPORTS

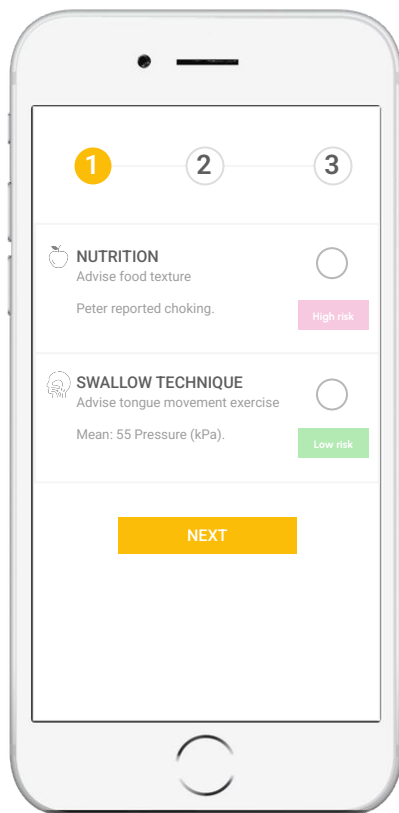


3. SPEECH THERAPIST'S MONITOR
DASHBOARD & REMOTE COUNSELING

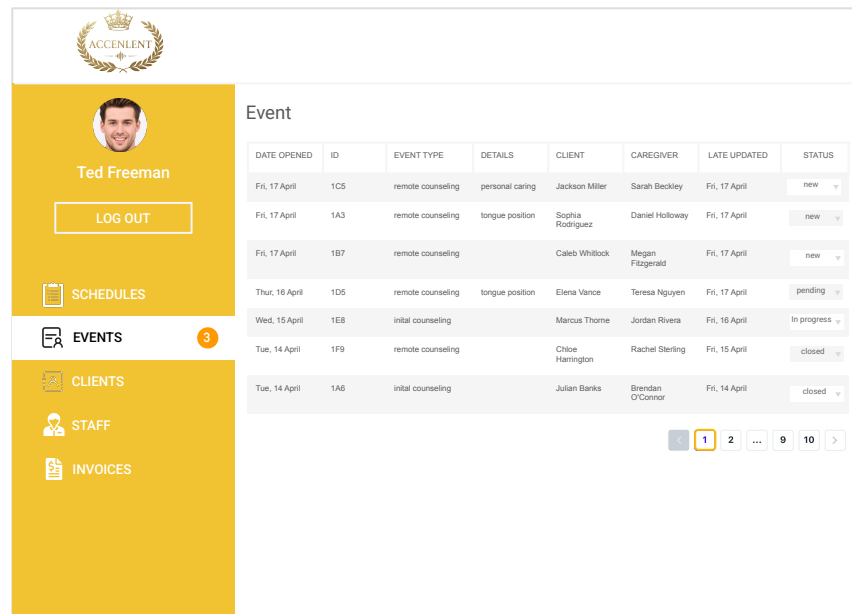
A UNIFIED REHABILITATION PLATFORM



CLIENT APP



SPEECH THERAPIST APP



PROVIDER CONSOLE

Preparing to co-develop
and validate with
academic and domain
expert and clinical
specialist.



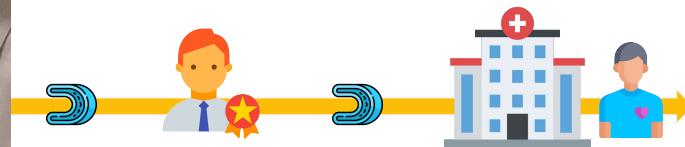
AI/ML MODEL



**Mark
Hasegawa-Johnson**
Lead Researcher, Speech
Accessibility Project
UIUC ECE Professor



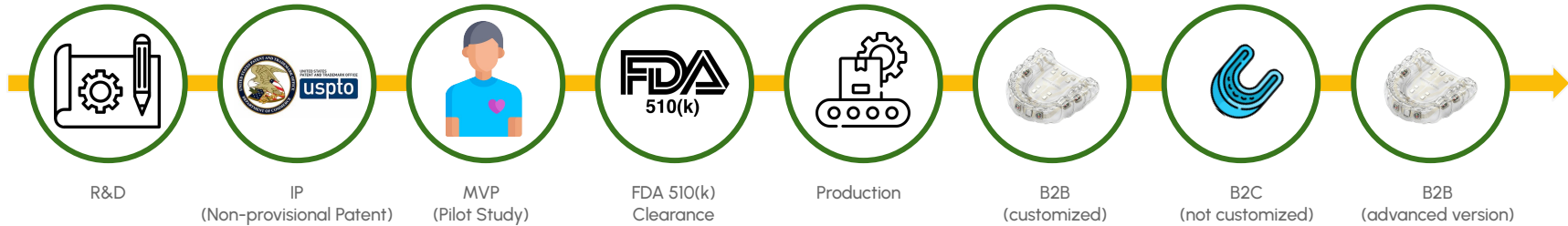
Caitlin A. Nudo
CCC SLP, Consultant
Home Care, OSF Healthcare



We talked to **50+** speech therapists, and we conclude:

1. AI Empowers, Not Replaces
2. Remote Monitoring Drives Compliance & Engagement





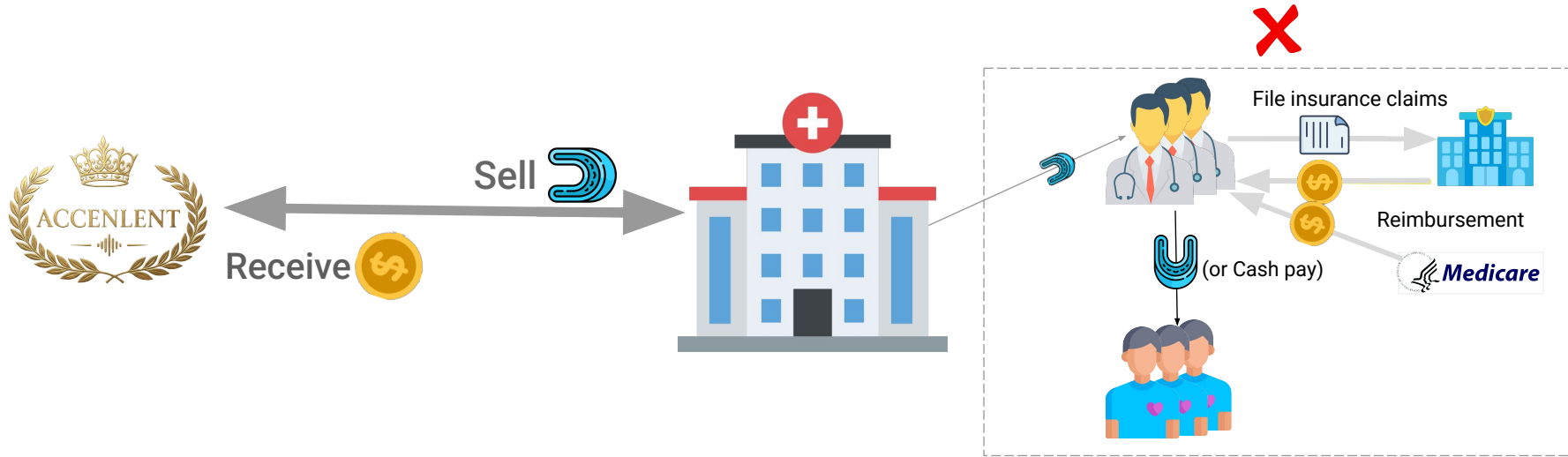
Do we require FDA clearance?

Yes, there are previous predicate devices that would allow 510(k) pathway.

B2B2C REVENUE MODEL



Target is selling to providers in key metro areas, bypassing insurance delays.



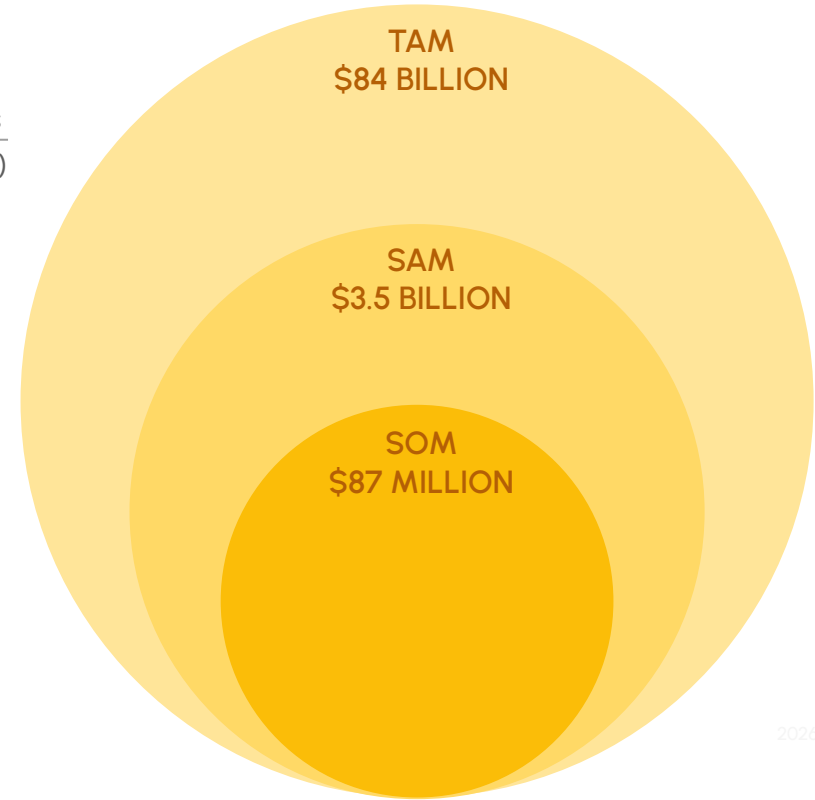
MARKET SIZE



B2C: w/o Rx, not customized, WSP: \$350, RRP: \$650, 134 Mn ESL learners
(Est: 15 % market share)

B2B: Prescription required, Customized mouth guard, 4 Mn patients

B2B: Wholesale price: \$450(+\$35 SaaS/mo), retail price: \$750, 100k patients



2026

	Accenlent	Traditional Therapy (Mirrors/Observation)	Hardware Monitoring	Teletherapy Platforms	Audio-only App, (ex:Duolingo)
In-clinic therapy & remote monitoring	✓	✗	✗	✗	✗
High Accuracy	✓	✗	✓	✗	✓
Objective AI Analytics	✓	✗	✗	✗	✓
Data Type	Diverse	Qualitative observation	Tongue-palate contact	Audio / Video	Text / Audio
Low Cost	✓	✗	✗	Reasonable	✓
Reimbursement	✓	✓	Partial	✓	✗

An investment of 750k will support Accenlent to implement its solution into healthcare system.



NSF I-CORPS HUB
**GREAT
LAKES
REGION**



2026

"MOST DISRUPTIVE TECHNOLOGY STARTUP"

Completed NSF I-Corps Boost Program.

Received Fundings from TEC and "Bridge2AI".

Registration as "Accenlent Corporation".

Submitted Provisional Patent Application.

Selected to Diverse Competitions.



The Future of Speech

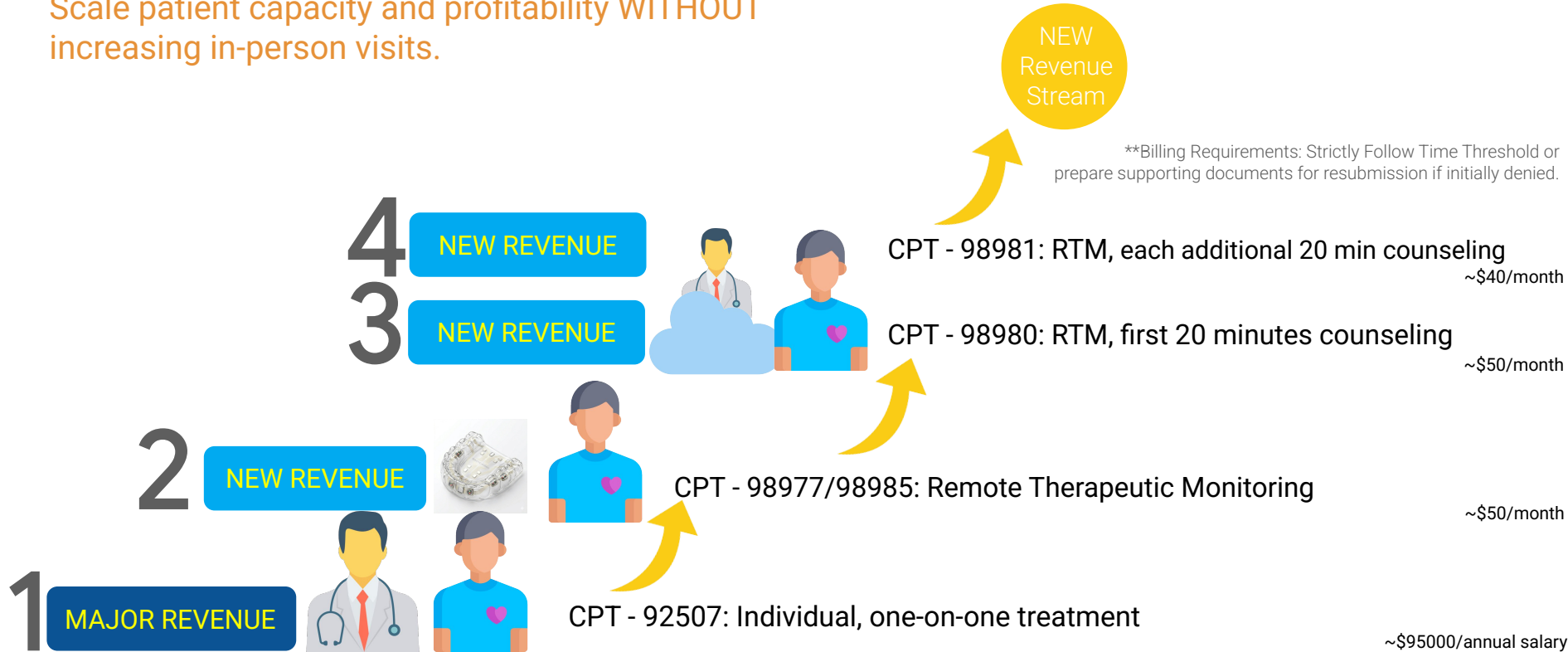
[Https://www.Accenlent.com](https://www.Accenlent.com)

Appendix

NEW REVENUE STREAM

Remote monitoring enables providers to file more reimbursement

Scale patient capacity and profitability **WITHOUT** increasing in-person visits.



Do we require FDA clearance?

Yes, there are previous predicate devices that would allow 510(k) pathway

Hardware

"Tracking Tongue Movement"



K802870

RION Electro-Palatograph (DP-01)

Software

"Biofeedback"



K112678

LSVT Companion



medical standard battery

#2



A Smart Mouth Guard To Eliminate Guesswork in Speech Therapy.



(Patent Pending)



WenChing Li
Founder & Software
Engineering



Hua-Ta Liang
Engineering



Christopher Chen
Kinesiology



Qasim Sikander
Carle Illinois College
of Medicine



ChunChen Lin
Electrical
Engineering



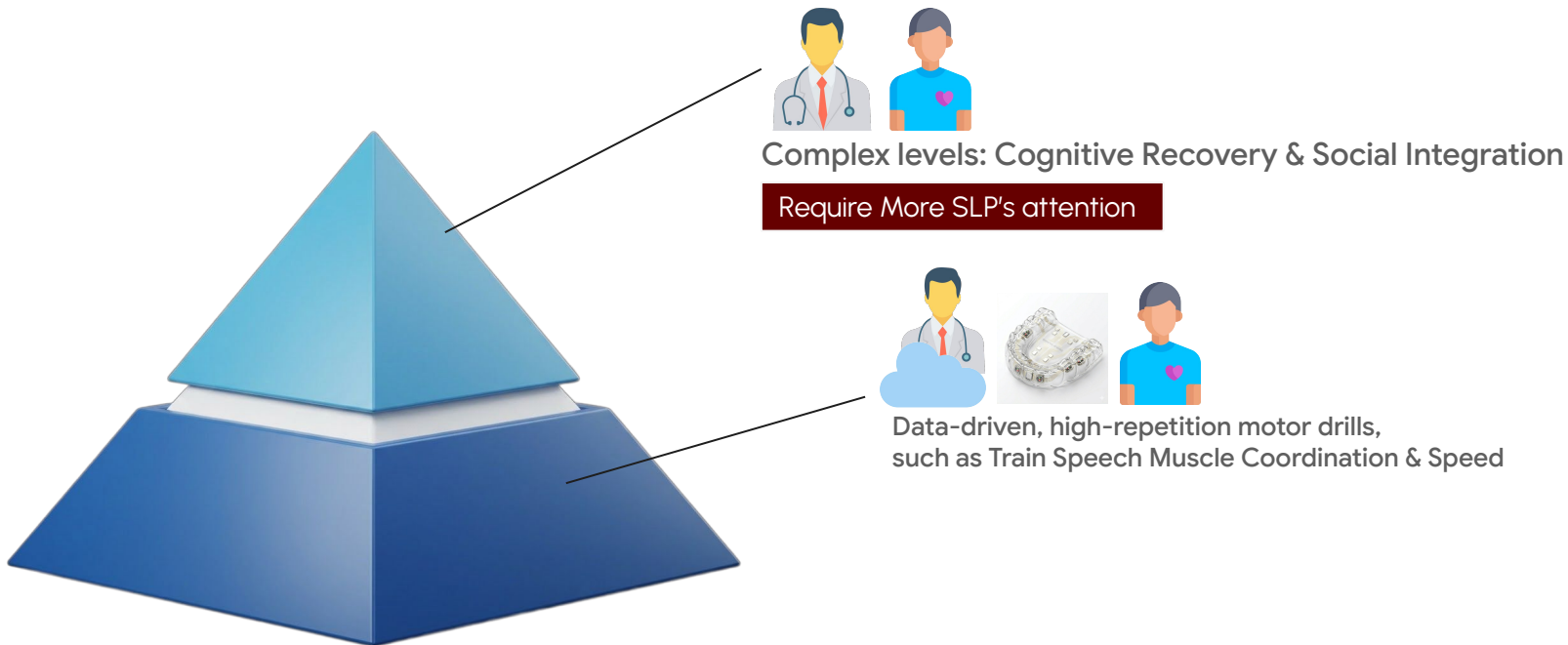
Wei-Yun Xu
Mechanical Engineering



Chia-Cheng Lee
CCC SLP & Consultant

DEVICES WILL FREE UP TIME FOR SLP TO SEE MORE PATIENTS

Mouthguards handle repetitive works



DEVICES WILL FREE UP TIME FOR SLP TO SEE MORE PATIENTS

Direct access to early adopters

Directly driving market traction with speech therapists

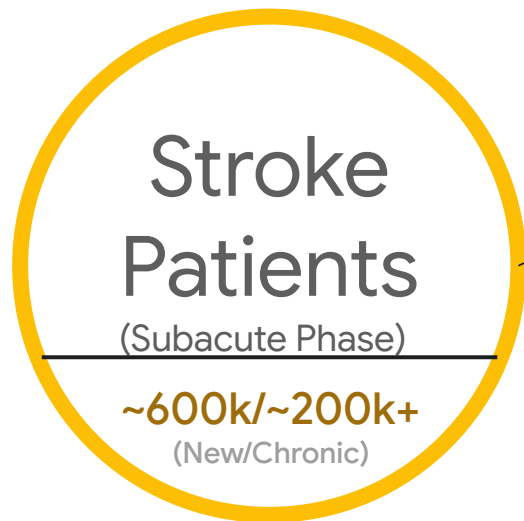
We are a member of

**Asian Pacific island
Speech-Language-Hearing Caucus**

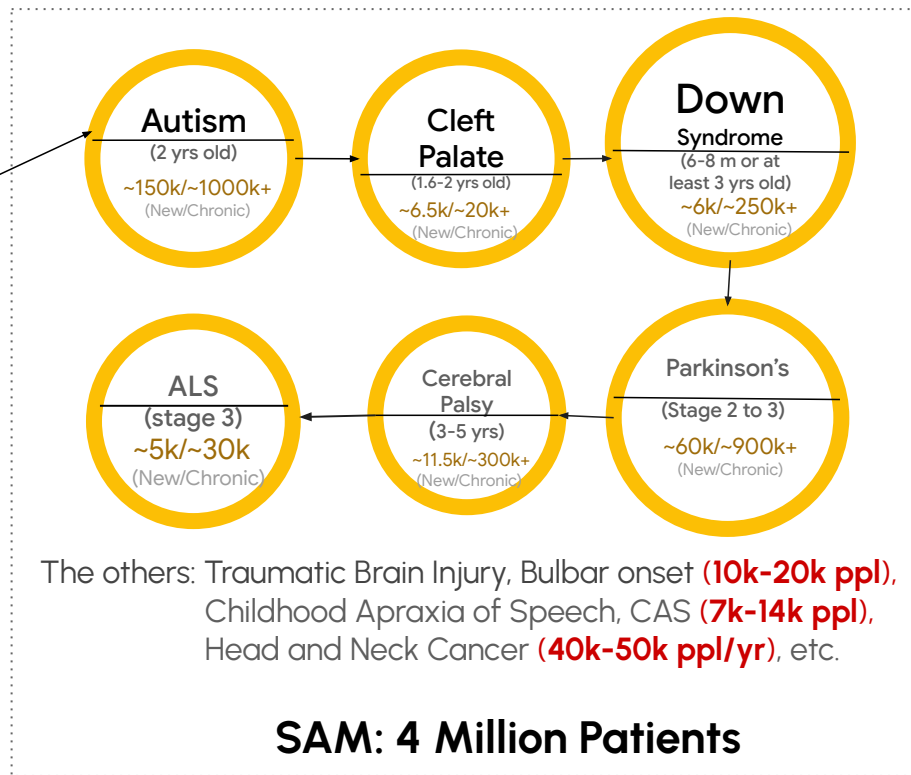


We start with Stroke Patients

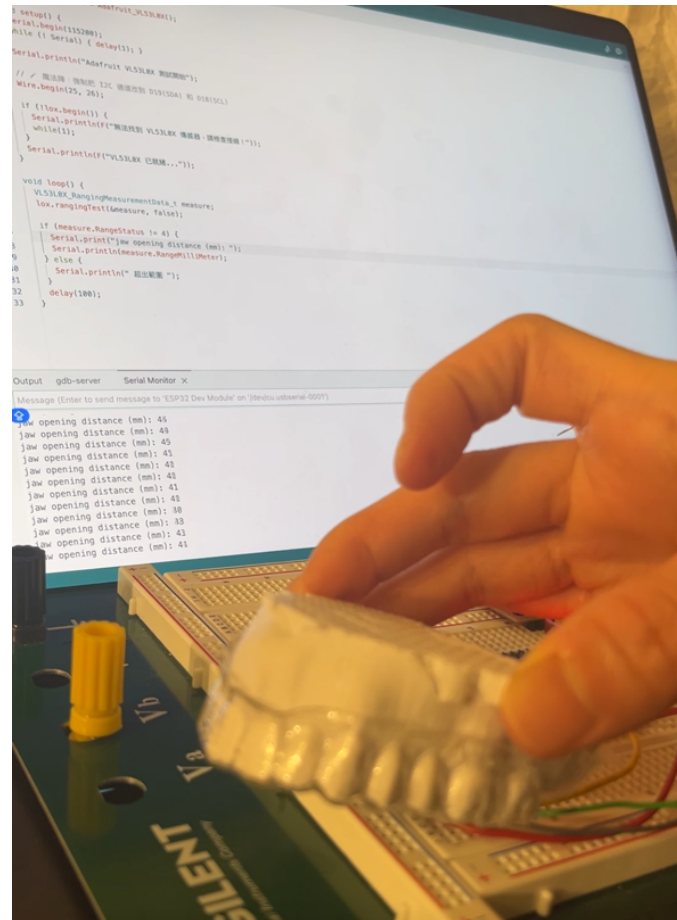
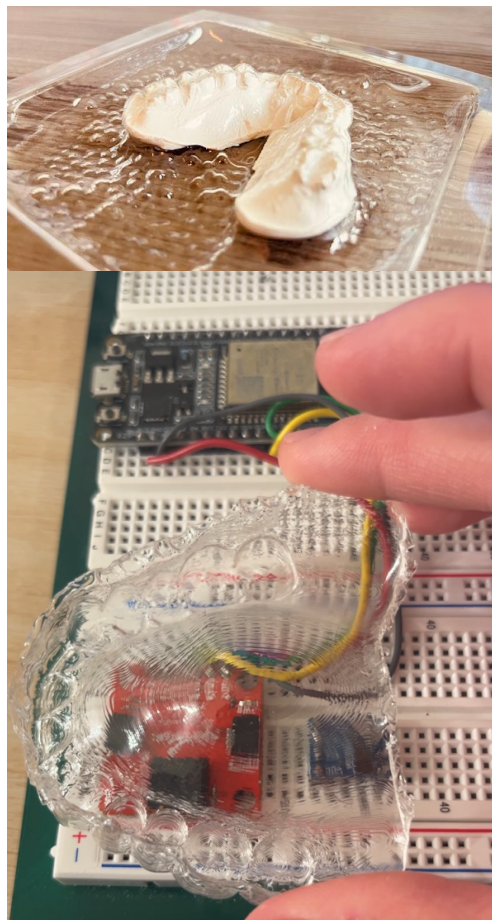
Stroke patients has the largest population and have predictable training outcome



Prioritized by patient volume and recovery predictability.



HARDWARE | CUSTOMIZED MOUTHGUARD, DATA-DRIVEN PLATFORM



SOFTWARE | ACCENT AI CAPTURE AND PREDICT THE SENTENCES

ACCENTLNT_FINAL_SUBMISSION

	transcript	etiology	transcript_cleaned	my_prediction	clean_transcript
b33839_29094_5652.wav	Please send this text.	Stroke	Please send this text.	PLEASE SEND THIS TEXT	PLEASE SEND THIS TEXT
b33839_29083_5652.wav	(stop) Stop listening.	Stroke	Stop listening.	STOP LISTENING	STOP LISTENING
b33839_29096_5652.wav	Send a message.	Stroke	Send a message.	SEND A MESSAGE	SEND A MESSAGE
b33839_29097_5652.wav	Make the screen brighter.	Stroke	Make the screen brighter.	MAKE THE SCREEN BRIGHTER	MAKE THE SCREEN BRIGHTER
b33839_29098_5652.wav	Is the pharmacy open?	Stroke	Is the pharmacy open?	IS THE PHARMACY OPEN	IS THE PHARMACY OPEN
b33839_29095_5652.wav	Reschedule my meeting.	Stroke	Reschedule my meeting.	RESCHEDULE MY MEETING	RESCHEDULE MY MEETING
b33839_29120_6262.wav	Take fish oil at bedtime.	Stroke	Take fish oil at bedtime.	TAKE FISH OIL AT BEDTIME	TAKE FISH OIL AT BEDTIME
b33839_29347_6262.wav	Thank you. Period.	Stroke	Thank you. Period.	THANK YOU PERIOD	THANK YOU PERIOD
b33839_29368_6262.wav	What's the weather on my birthday?	Stroke	What's the weather on my birthday?	WHAT'S THE WEATHER ON MY BIRTHDAY	WHAT'S THE WEATHER ON MY BIRTHDAY
b33839_29444_6262.wav	Show me a photo of spring flowers.	Stroke	Show me a photo of spring flowers.	SHOW ME A PHOTO OF SPRING FLOWERS	SHOW ME A PHOTO OF SPRING FLOWERS
b33839_29370_6262.wav	What's the (f-) weather on February 1st?	Stroke	What's the weather on February 1st?	WHAT'S THE WEATHER ON FEBRUARY 1ST	WHAT'S THE WEATHER ON FEBRUARY 1ST
b33839_29251_6262.wav	Is the MOMA ADA compliant?	Stroke	Is the MOMA ADA compliant?	IS THE MOMA ADA COMPLIANT	IS THE MOMA ADA COMPLIANT
b33839_29351_6262.wav	I received a wrong item.	Stroke	I received a wrong item.	I RECEIVED A WRONG ITEM	I RECEIVED A WRONG ITEM
b33839_29449_6262.wav	How far is home from Chicago?	Stroke	How far is home from Chicago?	HOW FAR IS HOME FROM CHICAGO	HOW FAR IS HOME FROM CHICAGO
b33839_29354_6262.wav	Call Shawna Brook.	Stroke	Call Shawna Brook.	CALL SHAWNA BROOK	CALL SHAWNA BROOK
b33839_29469_6264.wav	Read 'Percy Jackson Book 1' on Audiobook.	Stroke	Read 'Percy Jackson Book 1' on Audiobook.	READ PERCY JACKSON BOOK 1 ON AUDIOBOOK	READ 'PERCY JACKSON BOOK 1' ON AUDIOBOOK
b33839_29124_6264.wav	Take intuniv at two PM.	Stroke	Take intuniv at two PM.	TAKE INTUNIV AT TWO PM	TAKE INTUNIV AT TWO PM
b33839_29338_6264.wav	Recipe with avocados and tomatoes.	Stroke	Recipe with avocados and tomatoes.	RECIPE WITH AVOCADOS AND TOMATOES	RECIPE WITH AVOCADOS AND TOMATOES
b33839_29337_6264.wav	Recipe with two percent milk.	Stroke	Recipe with two percent milk.	RECIPE WITH TWO PERCENT MILK	RECIPE WITH TWO PERCENT MILK
b33839_29371_6264.wav	What's the weather on September 22nd?	Stroke	What's the weather on September 22nd?	WHAT'S THE WEATHER ON SEPTEMBER 22ND	WHAT'S THE WEATHER ON SEPTEMBER 22ND
b33839_29365_6264.wav	What's the weather on Christmas?	Stroke	What's the weather on Christmas?	WHAT'S THE WEATHER ON CHRISTMAS	WHAT'S THE WEATHER ON CHRISTMAS
b33839_29108_6264.wav	How many refills are left on my adderall?	Stroke	How many refills are left on my adderall?	HOW MANY REFILLS ARE LEFT ON MY ADDERALL	HOW MANY REFILLS ARE LEFT ON MY ADDERALL
b33839_29401_6264.wav	What's the thirty second ounces to cups?	Stroke	What's the thirty second ounces to cups?	WHAT'S THE THIRTY SECOND OUNCES TO CUPS	WHAT'S THE THIRTY SECOND OUNCES TO CUPS
b33839_29177_6264.wav	Who plays third base for the Pirates?	Stroke	Who plays third base for the Pirates?	WHO PLAYED THIRD BASE FOR THE PIRATES	WHO PLAYS THIRD BASE FOR THE PIRATES
b33839_29125_6264.wav	Take insulin at dinner time.	Stroke	Take insulin at dinner time.	TAKE INSULIN AT DINNER TIME	TAKE INSULIN AT DINNER TIME
b33839_29417_6264.wav	Make me a reservation at Dia Café.	Stroke	Make me a reservation at Dia Café.	MAKE ME A RESERVATION AT DIA CAF	MAKE ME A RESERVATION AT DIA CAF
b33839_29366_6264.wav	What's the weather on New Year's Eve?	Stroke	What's the weather on New Year's Eve?	WHAT'S THE WEATHER ON NEW YEAR'S EVE	WHAT'S THE WEATHER ON NEW YEAR'S EVE
b33839_29429_6264.wav	What time is it in Pennsylvania?	Stroke	What time is it in Pennsylvania?	WHAT TIME IS IT IN PENNSYLVANIA	WHAT TIME IS IT IN PENNSYLVANIA
b33839_29363_6683.wav	What's the weather on Memorial Day?	Stroke	What's the weather on Memorial Day?	WHAT'S THE WEATHER ON MEMORIAL DAY	WHAT'S THE WEATHER ON MEMORIAL DAY
b33839_29423_6683.wav	Chanelle Key, Friday at noon.	Stroke	Chanelle Key, Friday at noon.	CHANELLE KEY FRIDAY AT NOON	CHANELLE KEY FRIDAY AT NOON
b33839_29119_6683.wav	Take escitalopram at eight AM.	Stroke	Take escitalopram at eight AM.	TAKE ESCITALOPRAM AT EIGHT AM	TAKE ESCITALOPRAM AT EIGHT AM
b33839_29340_6683.wav	Recipe with tomatoes, rice, and celery.	Stroke	Recipe with tomatoes, rice, and celery.	RECIPE WITH TOMATOES RICE AND CELERY	RECIPE WITH TOMATOES RICE AND CELERY
b33839_29446_6683.wav	Who is the main character in Mamma Mia?	Stroke	Who is the main character in Mamma Mia?	WHO IS THE MAIN CHARACTER IN MAMMA MIA	WHO IS THE MAIN CHARACTER IN MAMMA MIA
b33839_29123_6683.wav	Take Guanfacine at six AM.	Stroke	Take Guanfacine at six AM.	TAKE GUANFACINE AT SIX AM	TAKE GUANFACINE AT SIX AM
b33839_29118_6683.wav	Take enalapril with lunch.	Stroke	Take enalapril with lunch.	TAKE ENALAPRIL WITH LUNCH	TAKE ENALAPRIL WITH LUNCH
b33839_29383_6683.wav	Set a reminder for Kristin's recital.	Stroke	Set a reminder for Kristin's recital.	SET A REMINDER FOR KRISTIN'S RECITAL	SET A REMINDER FOR KRISTIN'S RECITAL
b33839_29460_6683.wav	What's the weather in Chicago?	Stroke	What's the weather in Chicago?	WHAT'S THE WEATHER IN CHICAGO	WHAT'S THE WEATHER IN CHICAGO
b33839_29373_6683.wav	Add a fidget toy for Gary to my gift list.	Stroke	Add a fidget toy for Gary to my gift list.	ADD A FIDGET TOY FOR GARY TO MY GIFT LIST	ADD A FIDGET TOY FOR GARY TO MY GIFT LIST
b33839_29342_6683.wav	Dear customer service, comma.	Stroke	Dear customer service, comma.	DEAR CUSTOMER SERVICE COMMA	DEAR CUSTOMER SERVICE COMMA
b33839_29333_6683.wav	Recipe with carrots and tomatoes.	Stroke	Recipe with carrots and tomatoes.	RECIPE WITH CARROTS AND TOMATOES	RECIPE WITH CARROTS AND TOMATOES
b33839_29210_6683.wav	Find me things to do in Newport News, Virginia.	Stroke	Find me things to do in Newport News, Virginia.	FIND ME THINGS TO DO IN NEWPORT NEWS VIRGINIA	FIND ME THINGS TO DO IN NEWPORT NEWS VIRGINIA