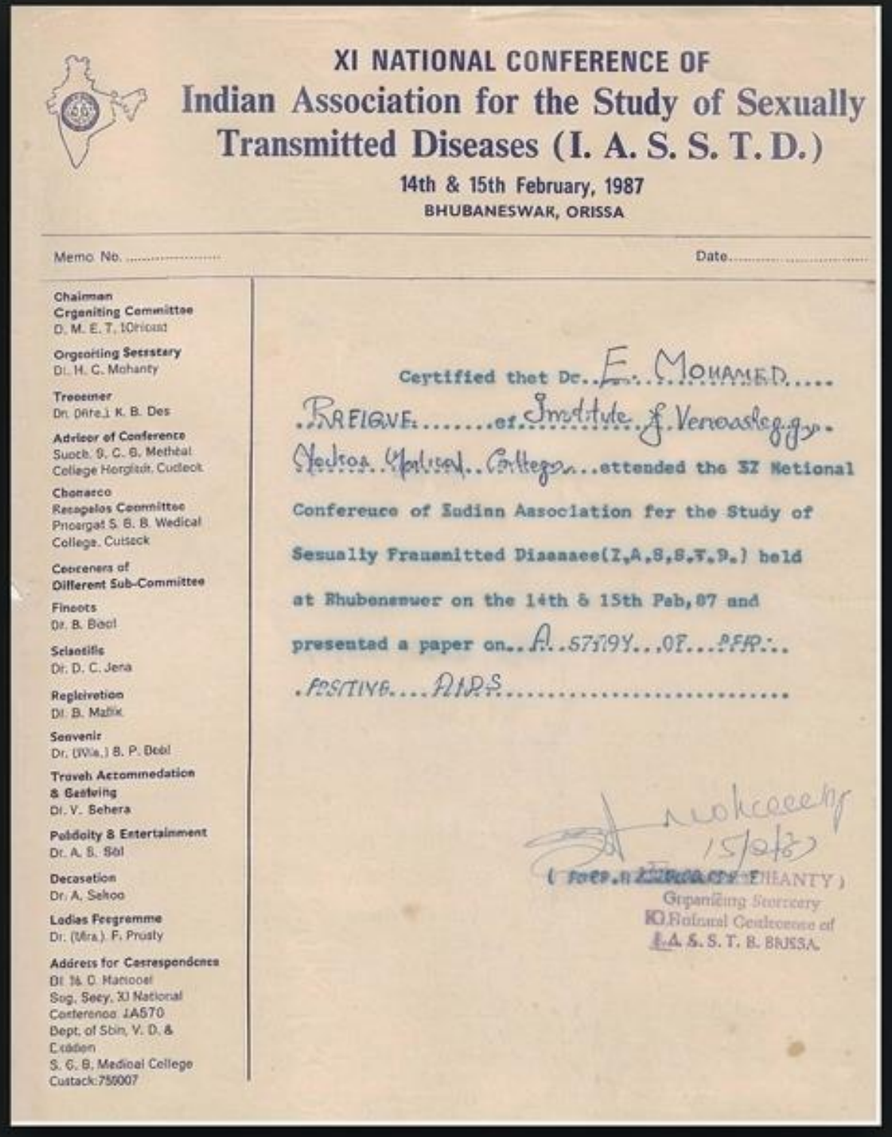

Dr. Essa Mohamed Rafique
Bridging the JVRC Lacunae in Medicine, AI, and Public Health.

1st Sero-positive case of HTLV-III in India



XI NATIONAL CONFERENCE OF
Indian Association for the Study of Sexually Transmitted Diseases (I. A. S. S. T. D.)
14th & 15th February, 1987
BHUBANESWAR, ORISSA

Memo. No. ..... Date.....

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Organising Committee
D. M. E. T. (Orissa)

Organising Secretary
Dr. H. C. Mohanty

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Advisor of Conference
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Dr. (Mrs.) F. Prusty

Address for Correspondence
Dr. H. C. Mohanty
Sec. Secy. XI National Conference IASSTD
Dept. of Skin, V. D. & Leprosy
S. C. B. Medical College
Cuttack-753007

Certified that Dr. E. MOHAMED RAFIQUE of Institute of Venereology Madras Medical College attended the XI National Conference of Indian Association for the Study of Sexually Transmitted Diseases (I.A.S.S.T.D.) held at Bhubaneswar on the 14th & 15th Feb, 87 and presented a paper on "A STUDY OF SERO-POSITIVE AIDS"

15/2/87

(H. C. MOHANTY)
Organising Secretary
XI National Conference of
I.A.S.S.T.D. ORISSA

Presenter	Dr. E. Mohamed Rafique
Institution	Institute of Venereology, Madras Medical College
Paper Title	"A STUDY OF SERO-POSITIVE AIDS"
Forum	XI National Conference of the Indian Association for the Study of Sexually Transmitted Diseases (I.A.S.S.T.D.)
Date & Location	February 14th & 15th, 1987 | Bhubaneswar, Orissa

Archival Nomenclature Note: *This milestone occurred during the early global epidemiological tracking phase when the virus was predominantly identified in medical literature as HTLV-III (Human T-lymphotropic virus type III), prior to the universal adoption of the HIV designation.*


BIOLOGICAL DATA
Clinical HIV Care
NCD Metabolic Markers
Subtype-C Virology
THE JVRC LACUNAE
COMPUTATIONAL INTELLIGENCE
AI Predictive Models
Structural Biology
Genotype-Phenotype Mapping
Modern HIV and CVD joint studies face a critical disconnect. JVRC requires an intelligence bridge between raw clinical biological reality and advanced computational proteomics.

CLINICAL MEDICINE

M.B.,B.S., D.V. (Venereology).

WHO Cardio-Vascular Health Officer managing NCDs & COVID-19 data.

GLOBAL PUBLIC HEALTH

UNAIDS Moderator for the AIDS Community.

MacArthur Fellow.

Experience guiding NACP-III policy.

Operating at the highest levels of global health execution, Dr. Rafique translates theoretical data into functional public health infrastructure.

The AI Trainee Curriculum: A Diagnostic View

The Foundation (Essential Subjects)

Python for Bioinformatics: Handling FASTA, sequence QC

Bioinformatics Algorithms: BLAST, mutational mapping

Computational Chemistry: Virtual screening

Data Harmonization: Linking viral loads with NCD markers like BMI

The JVRC Edge (Vital Subjects)

AI-Assisted Protein Folding: AlphaFold for Nef/Tat mutations

Machine Learning for Genotype-Phenotype Mapping: CVD severity

Molecular Dynamics (MD) Simulations: Drug escape mechanisms

Predictive Public Health Analytics

Competency Commonality Matrix (%)

High-Core Proficiency

Python and Machine Learning show the highest commonality, peaking at 98% for ML Basics

Cross-Functional Versatility

Dr. Rafique's assets cover diverse needs from backend data harmonization to frontend React/Angular interfaces

JVRC Essential Needs	Python	Machine Learning (ML)	Data Analysis	React/ Angular	SQL/ NoSQL	Cloud Platforms (AWS/ Azure)	Cybersecurity Principles	Agile Methodo-ogies
Data Harmonization	98%	87%	27%	32%	20%	25%	13%	17%
Algorithmic Automation	96%	85%	76%	97%	20%	18%	25%	12%
Machine Learning Basics	97%	98%	79%	85%	30%	18%	25%	17%
Frontend Interfaces (React/Angular)	99%	89%	79%	93%	20%	25%	15%	9%
Backend Systems	99%	77%	75%	98%	23%	44%	20%	13%
Cloud Integration	99%	68%	79%	73%	20%	90%	20%	16%
Cybersecurity	99%	73%	79%	73%	20%	35%	60%	10%
Project Management	99%	79%	70%	90%	25%	75%	20%	70%

Dr. Rafique's Skills

Strategic Advantage

The Head Start

Enables immediate focus on specialized data technologies by bypassing foundational training.

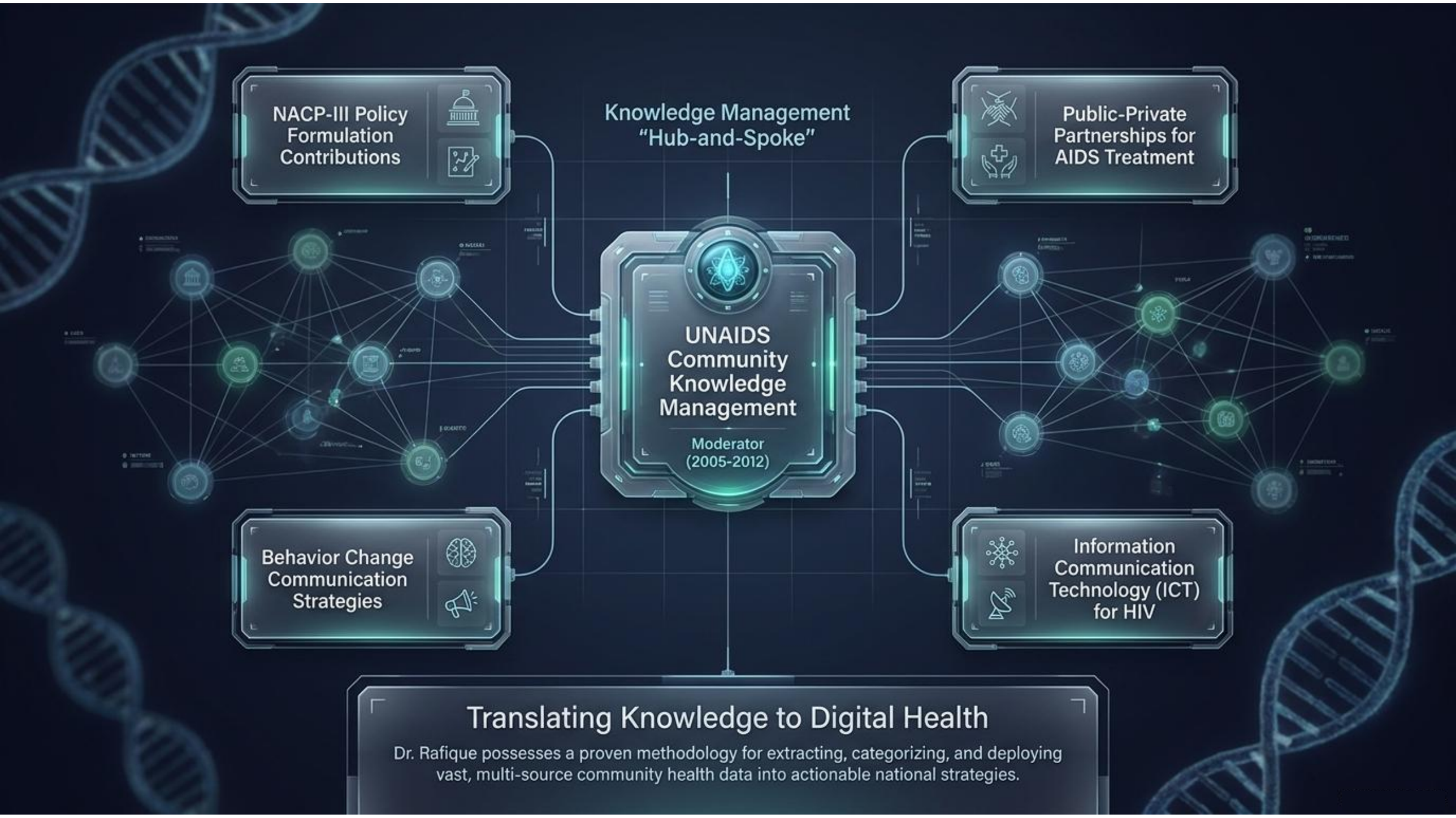
Immediate Operational Readiness

Positions the team to execute complex data processes without delay.

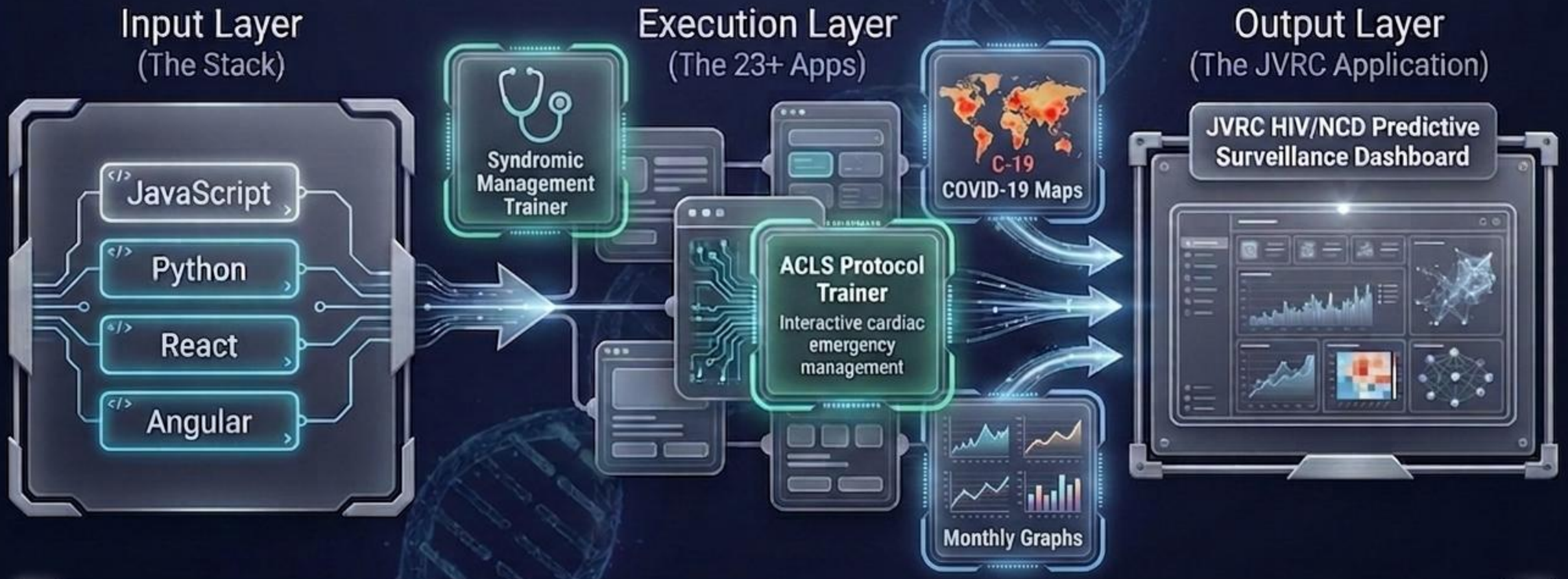
The Head Start: By bringing 36 specialized IT certifications to the laboratory, Dr. Rafique bypasses months of foundational training, arriving fully equipped to handle raw data harmonization and algorithmic automation

New Frontiers.

A robust technological baseline isolates the Final Mile of JVRC's niche—focusing GPU-accelerated computing exclusively on structural proteomics and virology.


NACP-III Policy Formulation Contributions
Knowledge Management "Hub-and-Spoke"
Public-Private Partnerships for AIDS Treatment
UNAIDS Community Knowledge Management
Moderator (2005-2012)
Behavior Change Communication Strategies
Information Communication Technology (ICT) for HIV
Translating Knowledge to Digital Health
Dr. Rafique possesses a proven methodology for extracting, categorizing, and deploying vast, multi-source community health data into actionable national strategies.

App-to-Impact



Dr. Rafique's Training and UN/UNAIDS Affiliations

He is a highly qualified expert. While working at the UN, Dr. Rafique received formal training in STATA, and during his tenure at UNAIDS, he was trained in Epi-Info. This unique combined expertise in statistical and epidemiological software directly translates to developing sophisticated public health analytics for the JVRC platform.

The Editorial Asset.

A decades-long track record of rigorous academic curation, peer review management, and global health authorship.

Editorial Leadership

Convenor of the Board of Editors for the Thanjavur Medical Journal (TMJ).

Global Health Authorship

Lead author, Monitoring & Evaluation in Community-Led Development.

HIV Specialty Text

Author, Barriers to Inclusion for those Living with HIV

UN Publications

Strategic frameworks for UNICEF and UNAIDS

Publication Pipeline

Raw Subtype-C Clinical Data
+ AlphaFold Structural Insights

Dr. Rafique's TMJ Editorial
Rigor & Data Harmonization

Premier Experimental
Publications

Jamal Research
Excellence Award
Capability

Elevating Institutional Credibility. By combining AI-generated structural models with exceptional editorial discipline, Dr. Rafique minimizes the activation energy required for JVRC to publish high-impact, award-winning experimental research.

Tri-force

The Language of the Lab (Biology)

Venereology, ART Center Medical Officer, HIV/NCD mechanisms.

The Language of the Machine (Technology)

Python, AI Data Models, AlphaFold readiness, App Architecture.

The Clinician-Scientist Culture

The Language of the Patient (Public Health)

UN Knowledge Management, WHO Cardio-Vascular Officer, Community Inclusion

True **scientific influence** requires fluency across domains. Dr. Rafique seamlessly navigates the microscopic mechanics of the virus, the macroscopic realities of the patient, and the computational intelligence required to connect them.

A High-Yield Strategic Integration.

Dr. Essa Mohamed Rafique brings a lifetime of implementation expertise, technical curiosity, and clinical rigor to the JVRC AI Trainee Curriculum.

He is precisely the Clinician-Scientist required to transform computational structural biology into long-term scientific influence.