

Applicant: Yaya Bah (29288198)

Program: M.Sc. in Genome Science and Technology (VGMMSC-LE)

Entry period: September 2024

Application comments:

No comments available

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Application form
Resume
Statement of Interest/Intent
Transcripts & Diplomas – Unofficial
eReference (eRef) Responses
Reference Letter

BAH, YAYA ()

29288198

Degree Selection

Submission Date: 10/Nov/2023

Campus	Program (VGMMSC-LE)	Academic Year	Term	Term Start
Vancouver	M.Sc. in Genome Science and Technology	2024-2025	W1	Sep 2024

Source of Interest

How did you find out about UBC?
Web Search

Personal and Contact Details

Student Number		Family Name (Surname)		Preferred Name
29288198		BAH		
Title	Given Name	Middle Name	Former Family Name (Surname)	
MR	YAYA			

Date of Birth	Gender	Country of Birth	Country of Current Citizenship
14/Jan/1977	Male	Gambia	Gambia
Dual Citizenship	Primary Spoken Language	Other Spoken Language	Visa Type
	English		International Student

Address Line (1 & 2)			
MRC UNIT THE GAMBIA AT LSHTM FAJARA			
City	Province, State or Region	Postal or Zip Code	Country
SERREKUNDA		273	Gambia

Day Telephone Number	Evening Telephone Number	Email Address
2207421788		ynayni@hotmail.com

Do you identify yourself as an Aboriginal person of Canada?
Do you identify yourself as a Racialized person?
Yes

Academic History

- Applicant indicates that they have only attended post-secondary institution(s) other than UBC.

University of Wisconsin-Whitewater

Institution Country:	United States of America
Start Date:	01/Sep/2012
End Date (or Expected End):	31/May/2015
Program of Study:	Chemistry
Credential Status	Conferred / Complete
Date Conferred:	31/May/2015
Credential Received:	Bachelor's
Awards & Honours received with this degree:	Dean List : Fall 2014, Spring 2013, Fall 2012 Chemistry department scholarship Spring 2013 Cum Laude
Required to withdraw:	No
Self Reported GPA:	
Used for Basis of Admission to UBC:	Yes

GPA Calculations Summary

Calculation Name	Purpose	Date of Calculation	Minimum GPA Req'd	GPA Calculation	GPA Rank	Meets Program Requirements	Meets UBC Requirements	First Class Standing?
Chemistry	Admissions	29/11/2023		3.42		Yes	Yes	No

Madison Area Technical College

Institution Country:	United States of America
Start Date:	01/Sep/2008
End Date (or Expected End):	31/May/2011
Program of Study:	Biotechnology
Credential Status	Conferred / Complete
Date Conferred:	31/May/2011
Credential Received:	Associate's
Awards & Honours received with this degree:	Dean List Fall 2008
Required to withdraw:	No
Self Reported GPA:	
Used for Basis of Admission to UBC:	No

Minneapolis Community and Technical College

Institution Country:	United States of America
Start Date:	01/Jan/2004
End Date (or Expected End):	01/Jan/2006
Program of Study:	Computer Programing
Credential Status	Courses Only
Awards & Honours received with this degree:	
Required to withdraw:	No
Self Reported GPA:	
Used for Basis of Admission to UBC:	No

Gambia High School

Institution Country:	Gambia
Start Date:	01/Sep/1996
End Date (or Expected End):	01/May/1998
Program of Study:	Physics. Math, Chemistry
Credential Status	Conferred / Complete
Date Conferred:	31/May/1996
Credential Received:	General Certificate of Education Advanced Level
Awards & Honours received with this degree:	
Required to withdraw:	No
Self Reported GPA:	
Used for Basis of Admission to UBC:	No

Kinderdorf Bottrop Technical High School

Institution Country:	Gambia
Start Date:	01/Sep/1992
End Date (or Expected End):	31/May/1996
Program of Study:	Sciences
Credential Status	Conferred / Complete
Date Conferred:	31/May/1996
Credential Received:	General Certificate of Education Ordinary Level
Awards & Honours received with this degree:	Best Science Student Class of 1996
Required to withdraw:	No
Self Reported GPA:	
Used for Basis of Admission to UBC:	No

- No **UBC** academic history found for this student number (29288198)

Funding

Standard Questions

Primary Funding

SOURCE of the support	
DOLLAR amount	
Includes TUITION fees?	
WHEN the support will commence	
WHEN the support will end	

SOURCE of the support	I am communicating with a potential supervisor who promise to supervise if he get funds.
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Experience & Interests

Standard Questions

Areas of Interest

Faculty Members

Huan, Tao
Loucks, Catrina
Carleton Bruce

Please provide a brief statement of your academic and/or professional goals and how these align with this graduate program.

Please describe any research and/or work experience (including publications, etc.) you've undertaken that is relevant to your proposed field of study.

RESEARCH EXPERIENCE

JULY 2020- CURRENT:

I contributed to SARS_COV-2 surveillance in the Gambia which resulted in a paper published in the Lancet Journal titled: "Genomic epidemiology of SARS-CoV-2 infections in The Gambia: an analysis of routinely collected surveillance data between March 2020, and January 2022" (DOI: [https://doi.org/10.1016/S2214-109X\(22\)00553-8](https://doi.org/10.1016/S2214-109X(22)00553-8)). I also work on a project that was investigating the efficacy of pharmacological agents for the prevention of COVID-19 transmission and infection; treatment during the early phase of the infection to prevent progression to severe pneumonia, and treatment during the later (severe) phases to prevent clinical worsening or death

MARCH 2019- JUNE 2020.

I worked on an observational study to develop a unique cohort of biologically and contextually characterized pregnant and non-pregnant women of reproductive age to support research into placental disorders (namely hypertension, fetal growth restriction, and stillbirth) in sub-Saharan Africa
Summer 2014.

I worked on a research project at the University of Wisconsin-Biochemistry with Professor Veldkamp which led me to be a co-author of a manuscript describing the NMR solution structure of CCL19 in the journal Biochemistry (Doi: 10.1021/acs.biochem.5b00560.

Program-Specific Questions

Briefly discuss your background in life sciences, including academic, work or other experiences that may assist the admissions committee. Please limit your response to one page.	I am currently working as a scientific Officer at MRCG @ LSTHM. My main responsibility is the genomic sequencing of different pathogens such as SARS-CoV2, E. coli, and so on using both Nanopore and Illumina sequencing technologies. I worked with different researchers to sequence their samples. This involves DNA/RNA extraction, bioanalyzing of the samples (Qubit, Tape Station, and fragmentation), library prep, sequencing, and bioinformatic analysis of the data. In addition to my main responsibility, I also work with the national public laboratory to collect sewage waste for testing and sequencing for surveillance of COVID-19 prevalence in the Gambia. Previously, I worked on a project that built a biobank of samples obtained from pregnant women for future studies. The project is to study the placental disorders such as hypertension and stillbirth. I also prep media for sample enrichment to be used for environmental testing of E. coli and salmonella.
Briefly discuss your background in quantitative sciences (math, statistics, computer science, engineering, physics) including academic, work or other experiences that may assist the admissions committee. Please limit your	I took the following courses at the undergraduate level; Physics for scientists and engineers level 180/181 Cal/analytical Geometry 254 Introduction to Programming 171 I use bioinformatics tools such as Nextclade, pangolin, EPI2ME, and HPC to analyze the COVID-19 data I have

Additional Questions

Standard Questions

Please discuss any other information you feel would be important to the Admission Committee in evaluating your application. If you feel that your credentials and any other information you have already provided on this form or will be submitting in support of your application represents you fairly, you should feel no obligation to write anything further here.

I attended the following training to upgrade my skills and earned a certificate.

1. Wellcome Connecting Science Covid-19 Genomics Global Training 2022. This course included an introduction to the Unix command line, Qc and consensus sequences, variant lineage identification, data sharing, and interpretation.
3. Introduction to R and Python through datacamp websites.
4. I used both Illumina (miseq) and nanopore (Gridlon)sequencing instruments to sequence different pathogens.
5. I use pangolin and next clade to analyze data from COVID-19 samples.

I have traveled to sister African countries to train my fellow young African scientists in sequencing and data analysis. I am competent in PCR ,gel electrophoresis ,and Microsoft. I presented a poster on the 75th. Anniversary of MRCG @ LSHTM explaining the history of SARS-CoV2 epidemiology in the Gambia . I continue my professional development by attending seminars and online webinars in the area of pathogen genomics and bioinformatics.

Referee 1

Name	Dr. Abdul Kareen Sesay
Job Title / Occupation	Head of Genomics Strategic Core Platform
Institution / Company / Organization	MRC UNIT THE GAMBIA AT LSHTM
Type of Reference	Professional
Address	F8F5+XP5, ATLANTIC BLVD FAJARASERREKUNDA KMC Gambia 273
Referee Email / Website	Abdul.Sesay@lshtm.ac.uk
Telephone #	+2204495442
Notes to Referees	

Referee 2

Name	Sessinou Benoit Assogba
Job Title / Occupation	Genomics and Molecular diagnostic Manager
Institution / Company / Organization	MRC UNIT THE GAMBIA AT LSHTM
Type of Reference	Professional
Address	F8F5+XP5, ATLANTIC BLVD FAJARASERREKUNDA KMC Gambia 273
Referee Email / Website	Sessinou-Benoit.Assogba@lshtm.ac.uk
Telephone #	+2204495442
Notes to Referees	

Referee 3

Name	Professor Christopher T Veldkamp
Job Title / Occupation	Professor
Institution / Company / Organization	UNIVERSITY OF WISCONSIN
Type of Reference	Academic
Address	800 W. MAIN STREET WHITEWATER WISCONSIN United States of America 53190
Referee Email / Website	veldkamc@uww.edu
Telephone #	+(262) 472-5267
Notes to Referees	

CURRICULUM VITAE : YAYA BAH

E-mail: Ynayni@hotmail.com

Tel: 7421788

Career Goals:

I am interested in working in academia as a professor and a researcher. I want to be between the intersection of science and data, to be able to generate scientific data and used modern technology to interpret and explain the data to scientists and other relevant authorities. I want to teach to help train the next generation of research professionals.

SKILLS:

- Genomic sequencing using Oxford nanopore technologies; Gridlon AND Mini Ion.
- Genomic sequencing using Illumina platforms: Miseq and Nextseq.
- Bioinformatics to Analysis data
- Various forms of chromatography HPLC, GCs, UV_VIs
- Making buffers, media, bacterial cell culture, bacterial transformation, and recombinant protein expression.
- DNA, RNA extraction, Protein purification, and gel electrophoresis techniques like SDS-PAGE
- Real-time PCR and QPCR
- Microsoft and other related technologies

EDUCATION

- **BS Chemistry:** University of Wisconsin –Whitewater, WI, 2015
- **Minor: Information Technology:** University of Wisconsin-Whitewater, 2015
- **AAS Biotechnology:** Madison Area Technical College, Madison, WI, 2011
- **A-level Math, Physics, Chemistry:** Gambia High School, Banjul, The Gambia, 1998
- **O-Level, Science:** Kinderdorf Bottrop Technical High School, Brikama, The Gambia, 1996

RESEARCH EXPERIENCE

JULY 2021- CURRENT:

I contributed to SARS_COV-2 surveillance in the Gambia which resulted in a paper published in the Lancet Journal titled: "Genomic epidemiology of SARS-CoV-2 infections in The Gambia: an analysis of routinely collected surveillance data between March 2020, and January 2022" (DOI: [https://doi.org/10.1016/S2214-109X\(22\)00553-8](https://doi.org/10.1016/S2214-109X(22)00553-8)). I also work on a project that was investigating the efficacy of pharmacological agents for the prevention of COVID-19 transmission and infection; treatment during the early phase of the infection to prevent progression to severe pneumonia, and treatment during the later (severe) phases to prevent clinical worsening or death.

MARCH 2021- JUNE 2021.

I worked on an observational study to develop a unique cohort of biologically and contextually characterized pregnant and non-pregnant women of reproductive age to support research into placental disorders (namely hypertension, fetal growth restriction, and stillbirth) in sub-Saharan Africa

MAY 2014-MAY 2015:

I worked on a research project at the University of Wisconsin-Biochemistry with Professor Veldkamp which led me to be a co-author of a manuscript describing the NMR solution structure of CCL19 in the journal Biochemistry (Doi: 10.1021/acs.biochem.5b00560).

PROFESSIONAL EXPERIENCE

Medical Research Council @ London School of Hygiene and Tropical Medicine-03/2020- Current Scientific Officer

I am working for the Genomic core platform at MRCG@LSTHM supporting different research projects in sequencing and data analysis. I used both nanopore and Illumina sequencing platforms to support different research projects. I also work on COVID-19-related projects doing all the library preps for Nanopore sequencing and data analysis. I also coordinate several other activities for the lab and work closely with stakeholders like procurement and logistics departments to make sure that the lab is always stocked. I have been and continue to train new staff and interns for the sequencing lab. I contributed immensely to the unit's COVID-19 response by assisting with the processing of COVID-19 samples from RNA extraction, and cDNA conversion to sequencing using standard protocols. I attend seminars/webinars and also present research papers to the bi-weekly Genomic Journal.

EUROFINS, Madison, WI: 08/2018-08/2019: Associate Analytical Chemist III, Special Analysis. In addition to the Associate Analytical Chemist II responsibilities, I performed routine assigned Assays. I performed a peer review of data and identify critical deviations from normal results. I was an active member of the Environment Health and Safety team through quarterly waste disposable, responding to spill incidents. I was also part of the First Responder Team. I operated various instruments such as HPLC, UV_VIS Spectrophotometer, and Fluorometer to analyze samples as required. I participated in method validation and improvement and trained less experienced staff. I inspected the laboratory to check for safety hazards. Make sure all corrective actions are taken to eliminate any potential hazards. I conducted regular tests for study samples making sure all due dates were met.

COVANCE, Madison WI: 11/2015-08/2018: Associate Analytical Chemist II. Special Analysis

I analyzed samples for various compounds and components in compliance with applicable methods, protocols, standard operating procedures (SOPs), and regulatory agency guidelines. I used various laboratory equipment relevant to assigned tasks, and properly documented work and laboratory records. I used Laboratory Management Information System to calculate and review data and results before they are submitted. I reviewed data and made sure there is no deviation from normal results and informed management of any problems that could have affected the integrity of the data. I make sure all laboratory supplies were available as needed.

Siliker Laboratories, Madison, WI: 12/2006-2013: Chemist

I analyzed the concentration of certain components in food samples by accurately preparing and processing the samples to obtain the needed results. I followed the proper method using SOPs to conduct the required testing. I used Laboratory Information Management System to calculate the percentage of elements present in food samples and post the results. I reviewed the results and informed the laboratory manager of any out-of-specification results. I prepared media for sample enrichment to be used for environmental testing, E-coli, and salmonella testing. I also prepared agar media and pour plates and inoculation tubes. I then autoclaved all the biohazard wastes before disposal.

Medical Research Council (MRC), Fajara, The Gambia: 10/1999-12/2001: Laboratory Technician

I worked as a laboratory Technician, assisting senior staff as needed. I received sputum samples and analyzed them for Mycobacterium tuberculosis with a sputum smear. I made a sputum smear and stained it with a staining agent. This stain was analyzed under a microscope to see if the patient's sample sputum has bacteria. I recorded the results and indicated the severity of the bacteria present, and then the results were reported to the doctor. I attended meetings and maintained a clean laboratory environment.

References:

Julie Spence: Eurofins Food Integrity and Innovation, Supervisor- Special Analysis

E-mail: JulieSpence@eurofinsUS.com, Tel: +6089493009

Dr. Hassimi Traore: the University of Wisconsin-Whitewater- Associate professor

E-mail: Traoreh@uww.edu, Tel: +2624725123

Dr Abdul Karim Sesay: Assistant Professor Head of Genomics Strategic Core Platform MRC Unit

The Gambia LSTHM

E-mail: Abdul.Sesay@lshtm.ac.uk, Tel: (+220) 4495442 - Ext. 3033

I graduated from the University of Wisconsin-Whitewater in 2015 with an Honors degree (GPA of 3.425) in Chemistry. Currently, I worked as a scientific officer at MRC Unit, The Gambia @ LSTHM on a research project that is investigating the efficacy of pharmacological agents for the prevention of COVID-19 transmission and infection, and treatment. My responsibilities are the genomic sequencing of SARS-CoV2 -RNA extraction, cDNA conversion, library prep, sequencing, and bioinformatic analyses of the data using both Oxford Nanopore and Illumina technologies and pipelines. In addition to the project, I also work with the genomics core platform where I contribute to the genomic surveillance of COVID-19 in The Gambia, and this resulted in a publication titled Genomics epidemiology of SAR-CoV2 infection in the Gambia in Lancet. This has piqued my interest in genome science, and I want to further my education to be a high contributor to health research in Africa and the world at large.

I intend to pursue an MSc in Genome Science and Technology to build expertise in next-generation sequencing, bioinformatics, and omics technologies. I want to understand the relationship between genes and disease. I intend to use these skills and knowledge acquired to participate in research and train the next generation of young African Scientists. I planned to obtain a master's as a bridge to pursuing a Ph.D. in an area that is aligned with my interests and career goals.

I would be honored to study the role of the genome in health and disease and hopefully build expertise in the area. I believe the program at the University of British Columbia is well structured and the world-class laboratories and professors will expose me to emerging technologies in genomics. This in turn will allow me to acquire the skills needed to contribute to improving healthcare around the world. I believe the program courses and the school environment will enable me to develop my skills and expertise in genomics science. I am motivated and enthusiastic about making this world a better place, and UBC is the best place to achieve these goals.

Apart from my day job, I have other interests and hobbies; I love soccer, comedy, and geopolitics. I am involved in village development communities that organize festivals, and cultural shows. If given the opportunity, I will be a good ambassador to UBC, Canada, and The Gambia.



Official Transcript

Name: Yaya Bah
Student ID: 1784387

Print Date: 03/23/2021
Institution Info:
University of Wisconsin - Whitewater
800 West Main Street
Whitewater, WI 53190
United States

From Minneapolis Community & Technical College

Transfer Credits

2012 Fall Term

Course	Description	Attempted	Earned	Grade	Points
162	COMPUTER APPLICATIONS	4.000	4.000	B+	13.320
COMPSCI 999	COMPSCI ELECTIVES	4.000	4.000	B	12.000
COMPSCI 999A	COMPSCI ELECTIVES	3.000	3.000	B	9.000
COMPSCI 999B	COMPSCI ELECTIVES	3.000	3.000	C	6.000
ENGLISH 101	FRESHMAN ENGLISH	3.000	3.000	B	9.000
ENGLISH 90W	FUNDAMENTALS OF ENGL - WAIVER	0.000	0.000	T	0.000
ENGLISH 102	FRESHMAN ENGLISH	3.000	3.000	B	9.000
ENVSOCI 999	ENVIRONMENTAL SCIENCE ELECTIVE	3.000	3.000	C	6.000
HISTORY 999	HISTORY ELECTIVES	3.000	3.000	A	12.000
MISC 999	MISC ELECTIVES	3.000	3.000	A	12.000
POLISCI 999	POLISCI ELECTIVES	3.000	3.000	A	12.000
Course Trans GPA:	0.000	Transfer Totals:	32.000		0.000

From Madison Area Technical College

2012 Fall Term

Course	Description	Attempted	Earned	Grade	Points
100	CHEMISTRY FOR CONSUMER	5.000	5.000	AB	17.500
201	PRINCIPLES OF MICROECONOMICS	3.000	3.000	BC	7.500
PSYCH 211	INTRODUCTORY PSYCHOLOGY	3.000	3.000	AB	10.500
Course Trans GPA:	0.000	Transfer Totals:	11.000		0.000

2012 Fall Term

Test Credits

Course	Description	Attempted	Earned	Grade	Points
40W	PRE - ALGEBRA - WAIVER	0.000	0.000	T	0.000
41W	BEGINNING ALGEBRA - WAIVER	0.000	0.000	T	0.000
Test Trans GPA:	0.000	Transfer Totals:	0.000		0.000

Beginning of Undergraduate Record

2012 Fall Term

Program: Letters & Sciences - Undergr
Plan: Chemistry - BS Major
Subplan: Liberal Arts Emphasis
Information Technology Minor

Course	Description	Attempted	Earned	Grade	Points
102	INTRODUCTORY CHEMISTRY	5.000	5.000	A	20.000
GENED 110	WORLD OF THE ARTS	3.000	3.000	A-	11.010
MATH 141	INTERMEDIATE ALGEBRA	4.000	4.000	A	16.000
Term GPA	3.918	Term Totals	12.000		47.010
Cum GPA	3.918	Cum Totals	12.000		47.010

2013 Spring Term

Program: Letters & Sciences - Undergr
Plan: Chemistry - BS Major
Subplan: Liberal Arts Emphasis
Information Technology Minor

Course	Description	Attempted	Earned	Grade	Points
104	INTRODUCTORY CHEMISTRY	5.000	5.000	A	20.000
ITBE 221	IT INFRASTRUCTURE	3.000	3.000	A	12.000
MATH 152	ELEMENTARY FUNCTIONS	5.000	5.000	A	20.000
PHILSPHY 241	INTRO TO PHILOSOPHY	3.000	3.000	A	12.000
Term GPA	4.000	Term Totals	16.000		64.000
Cum GPA	3.965	Cum Totals	28.000		111.010

2013 Summer Term

Program: Letters & Sciences - Undergr
Plan: Chemistry - BS Major
Subplan: Liberal Arts Emphasis
Information Technology Minor

Course	Description	Attempted	Earned	Grade	Points
253	CALC/ANALYTIC GEOMETRY I	5.000	5.000	A	20.000
Term GPA	4.000	Term Totals	5.000		20.000
Cum GPA	3.970	Cum Totals	33.000		131.010



Official Transcript

Name: Yaya Bah
Student ID: 1784387

2013 Fall Term

Letters & Sciences - Undergr
Chemistry - BS Major
Liberal Arts Emphasis
Information Technology Minor

Course	Description	Attempted	Earned	Grade	Points
251	ORGANIC CHEMISTRY	3.000	3.000	B	9.000
261	ORGANIC CHEMISTRY LAB	2.000	2.000	B	6.000
110	INTRO HUMAN COMM	3.000	3.000	C+	6.990
254	CALC/ANALYTIC GEOMETRY II	5.000	5.000	B-	13.350
180	PHYSICS SCI/ENGR I	5.000	5.000	C+	11.650
Term Totals		18.000	18.000		46.990
Cum Totals		51.000	51.000		178.000

2015 Spring Term

Letters & Sciences - Undergr
Chemistry - BS Major
Liberal Arts Emphasis
Information Technology Minor

Course	Description	Attempted	Earned	Grade	Points
371	PHYSICAL CHEMISTRY	3.000	3.000	B+	9.990
471	EXP PHYSICAL CHEMISTRY	1.000	1.000	A	4.000
484	TOPICS IN CHEMISTRY	1.000	1.000	S	0.000
285	WEB APPLICATION DESIGN	3.000	3.000	B+	9.990
320	BUSINESS ANALYSIS	3.000	3.000	A	12.000
385	PROJ MGMT: METHODOLOGIES	3.000	3.000	B	9.000
Term Totals		14.000	14.000		44.980
Cum Totals		100.000	100.000		339.120

2014 Spring Term

Letters & Sciences - Undergr
Chemistry - BS Major
Liberal Arts Emphasis
Information Technology Minor

Course	Description	Attempted	Earned	Grade	Points
252	ORGANIC CHEMISTRY	3.000	3.000	B	9.000
262	ORGANIC CHEMISTRY LAB	2.000	2.000	A-	7.340
390	WORLD OF IDEAS	3.000	3.000	A	12.000
280	INTRO INFORMATION SYSTEMS	3.000	3.000	B+	9.990
150	BEGINNING SWIM LEVEL 4	0.500	0.500	B	1.500
167	BEGINNING WEIGHT TRAINING	0.500	0.500	A	2.000
181	PHYSICS SCI/ENGR II	5.000	5.000	C	10.000
Term Totals		17.000	17.000		51.830
Cum Totals		68.000	68.000		229.830

Term Honors

Undergraduate Career Totals
Cum GPA: 3.425 Cum Totals 100.000 99.000 339.120

----- End of Undergraduate Record -----

Degree: Bachelor of Science
Confer Date: 05/19/2015
Degree Honors: Cum Laude
Plan: Chemistry - BS
Sub-Plan: Liberal Arts
Plan: Information Technology

2014 Fall Term

Letters & Sciences - Undergr
Chemistry - BS Major
Liberal Arts Emphasis
Information Technology Minor

Course	Description	Attempted	Earned	Grade	Points
261	AFRICAN-AMERICAN POLITICS	3.000	3.000	A	12.000
352	QUANTITATIVE ANALYSIS	5.000	5.000	A	20.000
370	PHYSICAL CHEMISTRY	3.000	3.000	B+	9.990
470	EXP PHYSICAL CHEMISTRY	1.000	1.000	B+	3.330
171	INTRO TO PROGRAMMING	3.000	3.000	C+	6.990
314	ADVANCED DATABASE	3.000	3.000	A	12.000
Term Totals		18.000	18.000		64.310
Cum Totals		86.000	86.000		294.140

End of Official Transcript

UNIVERSITY OF WISCONSIN-WHITEWATER

COURSE DROP OR STUDENT WITHDRAWAL

Prior to Fall 1990-91 courses that had been dropped by the student did not appear on the transcript. If a student withdrew, only the date of withdrawal appeared unless a) a course was completed before the withdrawal date or b) the student withdrew after the deadline and was failing a course (F grades posted). Effective Fall 1990-91 a "W" grade is recorded for both dropped courses and withdrawal (see "W" grade).

TRANSFER CREDIT

UW-W course numbers and grades are used when evaluating transfer courses. Transfer grades are not calculated into the UW-W GPA. All credits are converted to semester units. Department electives are designated by department name and course #999. University electives are designated by MISC 999. UW-Whitewater does not issue copies of official transcripts or documents received from other institutions.

COURSE NUMBERING SYSTEM (1962-Present)

001-099 Non-degree Credit
100-199 Primarily Freshman Level
200-299 Primarily Sophomore Level
300-399 Primarily Junior Level
400-499 Primarily Senior Level
500-799 Graduate Only

COURSE NON CAREER

Graduate students who enroll in undergraduate level courses, and undergraduate students who enroll in graduate level courses, will be registered for such courses with a grade basis of Course Non Career. Grades earned will be part of the student's official academic record but the student will not earn course credit toward his/her undergraduate or graduate level program. These grades will not be computed into the student's term or cumulative grade point average.

COURSE REPEATING

Undergraduate students may repeat a course with a previously earned C-, D+, D-, or F grade once and have only the grade of the second attempt averaged into the term and cumulative GPA. Courses repeated outside the policy will have no effect on the GPA and the student will earn no credit. Graduate students may repeat any grade with permission.

OTHER GRADES

I Incomplete (not counted as units attempted since Fall 1968)
N No grade reported (counted as units attempted - 0 honor points)
NN Not Reported (counted as units attempted)
NC No credit (not counted as units attempted)
P Progress (not counted as units attempted)
S Satisfactory (units earned equivalent to at least a C, but not counted in GPA)
T Transfer, test or course waiver
U Unsatisfactory (not counted as units attempted)
X Audit (not counted as units attempted)
W Withdrew after the 10th day of fall/spring full-term classes; prorated for shorter session classes in fall/spring, summer and winter term.
Implemented beginning Fall 1990.

ACCREDITATIONS AND AFFILIATIONS

UW-W is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools to award the Baccalaureate and Master's level degrees. In addition, many of the colleges and academic departments are fully accredited by their individual accrediting agencies. Refer to the University Catalog (<http://www.uww.edu/registrar/course-catalogs>) for further details.

TRANSCRIPT EXPLANATION & VALIDATION

Academic records of students who attended prior to Fall 1979 are stored in hardcopy format; records from Fall 1979 and after are stored electronically. Official transcripts of pre-Fall 1979 and Fall 1979/after have different layouts. Official transcripts are printed on purple security paper and they are validated with the registrar's signature and date. When photocopied the word VOID appears prominently across the face of the entire document.

HISTORY OF INSTITUTIONAL NAMES

University of Wisconsin-Whitewater 1971-Present
Wisconsin State University-Whitewater 1964-1971
Wisconsin State College-Whitewater 1951-1964
Whitewater State Teachers College 1927-1951
Whitewater State Normal School 1868-1927

DEPARTMENT/DISCIPLINE DESIGNATIONS

UW-Whitewater has five colleges:
College of Arts and Communications
College of Business and Economics
College of Education and Professional Studies
College of Integrated Studies
College of Letters and Sciences

ACADEMIC CALENDAR & UNIT/CREDIT VALUE

All units/credits are semester units/credits. One unit represents 800 minutes of lecture or 1600 minutes of laboratory instruction. UW-W offers fall, spring and summer terms; a winter term (3-week) was added in 1997.

TERM HONORS - UNDERGRADUATE

12 credits with no grade below a C and:
Pre 1981 3.50-4.00 term GPA = 1st Honors
1981-91 3.00-3.49 term GPA = 2nd Honors
Fall 91-Present 3.40-4.00 term GPA = Academic Honors
3.40 or greater term GPA plus a minimum of 9.0 units taken for a conventional grade.

HONORS PROGRAM - UNDERGRADUATE

Students who maintain a 3.40 cumulative UW-W GPA and complete 21 units of honors coursework may graduate with the honors program designation.

GRADUATION HONORS - UNDERGRADUATE

To graduate with honors a student must have completed at least 48 units at Whitewater and achieved the following UW-W cumulative GPA:
Summa Cum Laude 3.85 and above
Magna Cum Laude 3.60 to 3.84
Cum Laude 3.40 to 3.59

PRIVACY RIGHTS OF STUDENTS

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UNDERGRADUATE GRADING SYSTEM

A 4.00 grading system has been used since Fall 1963. The history of grades used, their meaning, and honor point values are listed below:

Grade	Fall 2007-present	Fall 1963-Sum 2007	Fall 1946-Sum 1963	Fall 1936-Sum 1946	1868-Sum 1936
A	4.00	4.00	3.00	5.00	3.00
A-	3.67				
B+	3.33				
B	3.00	3.00	2.00	4.00	2.00
B-	2.67				
C+	2.33				
C	2.00	2.00	1.00	3.00	1.00
C-	1.67				
D+	1.33				
D	1.00	1.00	0.00	2.00	0.00
D-	0.67				
E	N/A	N/A	N/A	1.00	N/A
F	0.00	0.00	0.00	N/A	0.00
S	Satisfactory (units earned equivalent to at least a C, but not counted in GPA)				

GRADUATE GRADING SYSTEM

A 4.00 grading system has been used since Fall 1963. The history of grades used, their meaning, and honor point values are listed below:

Grade	Fall 2013-present	Fall 1963-Sum 2013
A	4.00	4.00
A-	3.67	
AB		3.50
B+	3.33	
B	3.00	3.00
B-	2.67	
BC		2.50
C+	2.33	
C	2.00	2.00
C-	1.67	
D+	1.33	
D	1.00	1.00
D-	0.67	
F	0.00	0.00
I	Incomplete	
IP	In Progress (Thesis Only)	
P	Progress	
S	Pass (used in Pass/Fail grading basis)	

Revised 7/2018

For questions concerning this transcript contact the Registrar's Office.

University of Wisconsin-Whitewater Registrar's Office Roseman Hall, Room 2032 800 West Main Street Whitewater, WI 53190-1795 Ph: 262-472-1570 Fax: 262-472-1370 Email: registrar@uww.edu

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Madison Area Technical College Official Transcript

Page: 2



Madison Area Technical College
3550 Anderson Street
Madison, WI 53704
United States

Name : Yaya Bah
Student ID: 2681326
Birthdate : 1977-01-14

Print Date : 2011-02-28

Send To : YAYA PAH

P/Y BY: YAYA PAH

TRUAX CMFS

United States

Academic Program History

Program : Biotechnology Laboratory

2008-07-30 : Admitted

2008-07-31 : Active in Program

Beginning of Degree Career Record

Fall 2008-2009

Course	Description	Attempted	Earned Grade	Points
007	10007110 Biotechnology Applications	1.00	1.00 AB	3.500
007	10007115 General Cell Biology	4.00	4.00 B	12.000
307	10007136 Laboratory Math for Biotech	1.00	1.00 AB	3.500
306	10806134 General Chemistry	4.00	4.00 A	16.000
Dean's List - Honors				
TERM GPA :	3.500	TERM TOTALS :	10.00	10.00
				35.000

CUM GPA : 3.500 CUM TOTALS : 10.00 22.00 35.000

Spring 2008-2009

Course	Description	Attempted	Earned Grade	Points
007	10007103 Biotech Lab Skills	3.00	3.00 AB	10.500
007	10007111 Biotechnology Career Seminar	1.00	1.00 A	4.000
007	10007174 Applied Microbiology	4.00	4.00 BC	10.000
806	20806201 Gen Organ & Biol Chemistry	5.00	5.00 AB	17.500
TERM GPA :	3.231	TERM TOTALS :	13.00	42.000
CUM GPA :	3.346	CUM TOTALS :	23.00	77.000

Fall 2009-2010

Course	Description	Attempted	Earned Grade	Points
007	10007102 Radioisotopes	1.00	1.00 B	3.000
007	10007108 Hazardous Materials	1.00	1.00 BC	2.500
007	10007109 Biosafety	1.00	1.00 AB	3.500
007	10007123 Cell Culturing	3.00	3.00 B	9.000
007	10007124 Molecular Biology 1	3.00	3.00 B	9.000
809	20809212 Micro Economics	3.00	3.00 BC	7.500



Jennifer L. Hoge
Jennifer L. Hoge, Registrar

Madison Area Technical College
550 Anderson Street
Madison, WI 53704
United States

Name : Yaya Bah
Student ID: 2681326
Birthdate : 1977-01-14



TERM GPA : 2.875 TERM TOTALS : 12.00 12.00 34.500
CUM GPA : 3.166 CUM TOTALS : 35.00 47.00 111.500

Spring 2009-2010

Course	Description	Attempted	Earned Grade	Points
10007104	Chromatography Techniques	3.00	3.00 AB	10.500
10007105	Bioprocess Technology	3.00	3.00 AB	10.500
10007125	Res Methods in Molecular Bio	3.00	3.00 BC	7.500
TERM GPA :	3.167	TERM TOTALS :	9.00	28.500
CUM GPA :	3.162	CUM TOTALS :	44.00	140.000

Fall 2010-2011

Course	Description	Attempted	Earned Grade	Points
10007122	Protein Bioseparations Methods	3.00	3.00 AB	10.500
20809231	Intro Psychology	3.00	3.00 AB	10.500
Dean's List - Honors				
TERM GPA :	3.500	TERM TOTALS :	6.00	21.000
CUM GPA :	3.220	CUM TOTALS :	50.00	161.000

Spring 2010-2011

Course	Description	Attempted	Earned Grade	Points
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007	10007112	Biotechnology Employ Skills	1.00	
007	10007121	Appl Biochemistry	3.00	
007	10007126	Occup Work Experience	3.00	
TERM GPA :	0.000	TERM TOTALS :	0.00	0.000
CUM GPA :	3.220	CUM TOTALS :	50.00	161.000

Transfer Credits

Transfer Credit from Minneapolis Community & Technical College

Applied Toward Biotechnology Laboratory Program

Fall 2008-2009

Course	Description	Attempted	Earned Grade	Points
801	20801201 English 1	3.00	3.00 T	
801	20801202 English 2	3.00	3.00 T	
809	20809223 International Rel	3.00	3.00 T	
999	99999999 Elective Credit	3.00	3.00 T	
Course Trans GPA:	0.000	Transfer Totals :	12.00	12.00



Jennifer L. Hoge
Jennifer L. Hoge, Registrar

Name: Bah, Yaya SSN: xxx-xx-5808

Minneapolis Community & Technical College
Undergraduate Academic Record
1501 Hennepin Ave
Minneapolis MN 55403

Date of Issue: 04/16/2008 Page: 1 of 1
Student Campus ID: 00239358
Student Number: 00239358

Subj Nbr	Title	Course Credit	Grade	Credit Earned	GPA Credit	GPA Pts
***** Minneapolis Community & Technical College *****						
Spring 2004						
Major: Computer Programming						
Freshman						
READ 0200	Reading 2	3.00	P	3.00	0.00	0.00
PSCI 1104	World Politics	3.00	A	3.00	3.00	12.00
HIST 1020	Contemp World Hist:Issues	3.00	A	3.00	3.00	12.00
UNDG Term Att:	9.00 Earn:	9.00 GPA Crs:	6.00 GPA Pts:	24.00 GPA:	4.00	
**** Cum Att:	9.00 Earn:	9.00 GPA Crs:	6.00 GPA Pts:	24.00 GPA:	4.00	
Fall 2004						
ENGL 1110	College Engl 1	3.00	B	3.00	3.00	9.00
BIOL 1136	Environmental Science	3.00	C	3.00	3.00	6.00
HUMN 2211	Women and Violence	3.00	A	3.00	3.00	12.00
UNDG Term Att:	9.00 Earn:	9.00 GPA Crs:	27.00 GPA Pts:	51.00 GPA:	3.40	
**** Cum Att:	18.00 Earn:	18.00 GPA Crs:	15.00 GPA Pts:	51.00 GPA:	3.40	
Fall 2005						
Major: Software Development						
ITEC 1170	Information Tech Skills	2.00	B	2.00	2.00	6.00
ITEC 1425	Data Communications	4.00	B	4.00	4.00	12.00
ITEC 1100	Info Tech Concepts	2.00	A	2.00	2.00	8.00
UNDG Term Att:	8.00 Earn:	8.00 GPA Crs:	26.00 GPA Pts:	77.00 GPA:	3.34	
**** Cum Att:	26.00 Earn:	26.00 GPA Crs:	23.00 GPA Pts:	77.00 GPA:	3.34	
Spring 2006						
Sophomore						
ITEC 1250	MS Windows Operating Sys	3.00	B	3.00	3.00	9.00
ENGL 1111	College English 2	3.00	B	3.00	3.00	9.00
ITEC 1150	Programming Logic & Desig	3.00	C	3.00	3.00	6.00
UNDG Term Att:	9.00 Earn:	9.00 GPA Crs:	24.00 GPA Pts:	101.00 GPA:	2.66	
**** Cum Att:	35.00 Earn:	35.00 GPA Crs:	32.00 GPA Pts:	101.00 GPA:	2.66	
*** END OF ACADEMIC TRANSCRIPT ***						

In compliance with the Family Educational Rights and Privacy Act of 1974, this transcript has been released at the request of the student and may not be released to any other party without written consent of the student.

Elizabeth R. Erredge, Registrar
A raised seal is not required.

Madison Area Technical College

Madison



Wisconsin

On recommendation of the Faculty and by virtue of the authority vested in the Madison Area Technical College District, the Board hereby confers on

Paul Nash

An Associate in Applied Science Degree
in

Biotechnology Laboratory Technician

Given this thirteenth day of May, Two Thousand and Eleven.

President

Betty S. Barlow

Chair of the Board

Paul D. Bal

UNIVERSITY OF WISCONSIN WHITEWATER

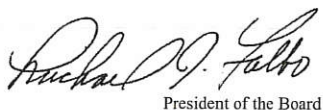
THE BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM,
ON THE NOMINATION OF THE FACULTY, HAS CONFERRED UPON

YAYA BAH

THE DEGREE OF
BACHELOR OF SCIENCE
CUM LAUDE

TOGETHER WITH ALL HONORS, RIGHTS, AND PRIVILEGES BELONGING TO
THAT DEGREE. IN WITNESS WHEREOF, THIS DIPLOMA IS GRANTED.

GIVEN AT WHITEWATER IN THE STATE OF WISCONSIN, THIS NINETEENTH DAY OF MAY
TWO THOUSAND FIFTEEN.


President of the Board


President, University of Wisconsin System




Chancellor, University of Wisconsin-Whitewater



**MRC Unit
The
Gambia**

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



20 November 2023

TO WHOM IT MAY CONCERN AT THE SELECTION COMMITTEE OF MASTER PROGRAM

I hereby Dr. Sessinou Benoit Assogba (PhD), Head of Molecular Biology Facility at Medical Research Council Unit The Gambia at London School of Hygiene & Tropical Medicine (MRCG-LSTHM). It is with great pleasure that I recommend Mr Yaya Bah for your Master program.

I am Mr Bah's line manager on Genomic sequencing Lab where he is Scientific Officer. Yaya holds a Bachelor of Science Degree and his work rate in the Laboratory was exceptional as he frequently work overtime in most cases to fast track the activities.

He is one of the most exceptional people I have trained and worked with. He has a keen interest in genomic and scientific inquiry. His advanced skills and passion for the subject make him an ideal fit for your rigorous Genomic program.

Yaya is a perceptive, sharp, quick individual with a high aptitude for genomic sequencing and science in general. He was a perfect fit for our project. While Yaya is perfectly capable of working independently, his interpersonal skills are exemplary and allow him to thrive in a group atmosphere or when speaking publicly. He has completed multiple projects over the course of his time at MRCG@LSHTM and in a very timely manner. He is extremely capable of maintaining focus for long periods of time and his

Medical Research Council Unit The Gambia at the London School of Hygiene & Tropical Medicine

Atlantic Boulevard, Fajara, Kanifing Municipality, The Gambia

(+220) 4495835 www.mrc.gm [@mrcunitgambia](https://twitter.com/mrcunitgambia)

performance never falters, even after working on one task for an extended period of time.

It is a pleasure to have him in the same workplace, and his positive attitude and belief in himself, even in the face of difficulty, is an immensely admirable asset. I'm confident that he will continue to demonstrate the same diligence, perseverance, and optimism that he showed myself and his peers. I highly recommend Mr Yaya Bah for admission to your graduate program.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'S. Assogba' with a stylized flourish.

Dr Sessinou Benoit Assogba, BSc, MSc, PhD

Head of Molecular Biology Facility

T: (+220) 7214255

E: sbassogba@mrc.gm | Sessinou-Benoit.Assogba@lshtm.ac.uk

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September 11, 2023

Dear Admissions Committee:

I am writing to **strongly** recommend **Yaya Bah** for admission to graduate school. I am Christopher Veldkamp, a Professor of Chemistry, past American Cancer Society Postdoctoral Fellow and past recipient of an R15 Academic Research Enhancement Award from the National Institutes of Health. I worked with Yaya as a summer researcher (2014) in my lab where he worked as an undergraduate research technician supported by the R15 award.

First, I will describe Yaya's role in my lab. My lab is a structural biology lab that works on chemokines, or chemoattractant cytokines, which traffic immune cells throughout the body. Chemokines are also involved in many disease states like HIV-1/AIDS, autoimmune/inflammatory diseases, and cancer. In particular, the lab studies CCL21 and CCL19. CCL21 and CCL19 function to recruit antigen presenting dendritic cells and naïve T-cells to the lymph nodes, but can also recruit metastatic cancer cell to lymph nodes as well. Yaya's role during the summer was to produce recombinant CCL21 and CCL19 among other proteins for various research efforts. To do this he learned numerous techniques, including simple tasks like making buffers, media, and other daily reagents to more complex skills like bacterial cell culture, bacterial transformations, recombinant protein expression, recombinant protein purification using various forms of chromatography (IMAC, ion exchange, reverse phase HPLC), electrophoresis techniques like SDS-PAGE (including pouring gels), dialysis, protein refolding, methods for quantifying protein concentration using UV/Vis and Beer's law and many others. His lab work was excellent and meticulously recorded in his lab notebook. Yaya's contributions have led to him being listed as a coauthor on a manuscript describing the NMR solution structure of CCL19 in the journal *Biochemistry* (doi: 10.1021/acs.biochem.5b00560). Yaya's work in my lab and this publication illustrate that he will be successful in graduate school.

Second, Yaya has utilized his degree through working at Covance Laboratories, Inc. in Madison, WI, where his success is evidence by his continued promotion from Associate Analytical Chemists I to II and now III. Given his performance in my research lab and after graduation, I believe he is on par with other students that I have recommended for, were accepted into, and have been successful in masters or Ph.D. programs.

Again, I **strongly** recommend **Yaya Bah** as he will make an excellent graduate student and researcher.

Cordially,

A handwritten signature in black ink, appearing to read 'Christopher T. Veldkamp'.

Christopher T. Veldkamp, Ph.D.
Professor
Department of Chemistry
University of Wisconsin-Whitewater
800 West Main Street
Whitewater, WI 53190, USA
262-472-5267 or veldkamc@uww.edu





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MEDICINE



University of British Columbia

Genome Science and Technology Program Coordinator

100-570 West 7th Avenue

Vancouver, British Columbia, CANADA V5Z 4S6

23rd November 2023

Re: Letter of recommendation for Mr. Yaya Bah for the M.Sc. in Genome Science and Technology

It gives me great pleasure to recommend Yaya Bah for admission into Master of Science Degree in Genome Science and Technology in your reputable Institution. I have come to know Yaya very well over the past 3 years as his direct supervisor and mentor and feel that he is an outstanding candidate for the program. I can attest to him academic maturity, him commitment to learning and with an exemplary work ethics.

I am the Head of the recently created Genomics Strategic Core platform, appointed as an Assistant Professor, having established the Genomics Core Facility at the MRC Unit in the Gambia at London School of Hygiene and Tropical Medicine in 2017. In my previous role, I managed the Sequencing and Microarray Core Facility in the Mill Hill Laboratory of the Francis Crick Institute, formerly known as the MRC, National Institute for Medical Research from 2009. And I was the production manager and assistant lead at the Advance Sequencing Facility, Science Technology Platform at the new site in central London until 2016.

The team had a strong interest in establishing a state of the art, highly specialised Genomics and Bioinformatics platform in the unit and in the region. Yaya can work independently with great creativity and enthusiasm. He is bright and curious about genomics science and works well under pressure as he has been demonstrating with him role and responsibility in the team. He is the lead in receiving and processing of all the Covid-19 positive isolates in the country that are submitted for sequencing in the genomics facility. He wants to pursue further academic training and him leadership skills and this MSc in genomics medicine will help support him personal development.

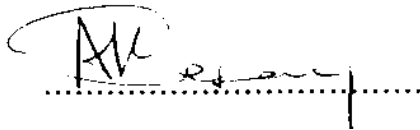
I happy to be one of Yaya's referees because from the time I have known him, he has demonstrated that he is hard working and very loyal to his work area, collaborate successfully with colleagues in the unit and have made significant contributions to the Institute research programs. I am confident if he is successful to be offered a place at the University of British Colombia MSc in Genomics Medicine he will thrive and be able to return to the Gambia at the end of training and contribute to our desperate need for high calibre well trained leaders in the STEM disciplines.

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Atlantic Boulevard, Fajara, Kanifing Municipality, The Gambia

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Yours sincerely,

A handwritten signature in black ink, appearing to read 'AK Sesay', written over a horizontal dotted line.

Dr Abdul Karim Sesay

Assistant Professor

Head of Genomics Strategic Core Platform

T: (+220) 3415210

E: aksesay@mrc.gm | Abdul.sesay@lshtm.ac.uk

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2

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