

Nan Ketpura-Ching

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<http://nkceportfolio.weebly.com/>



Science Teacher

Educational Technologist

Life Long Learner

Professional Goals

- To provide professional development and support teachers in Educational Technology and platforms such as Google Workspace and Canvas Learning Management System.
- To collaborate and work with both students and teachers to move towards positive and transformative use of technology in our classroom and digital learning environments.
- To instill science literacy in high school students.

Education

- 2011 – 2013 University of Hawai'i, Manoa Honolulu, HI
M.Ed. in Educational Technology (On-line Program)
 - Thesis: [Problem-based Learning for Healthy Hearts](#) with a Graduate Certificate of Online Learning and Teaching (COLT)
- 2004 – 2005 California State University, Northridge Northridge, CA
Single Subject Credential Program in Science with Emphasis in Biology
- 1999 – 2002 University of California, Los Angeles Los Angeles, CA
M.S. in Biological Chemistry with emphasis on Developmental Biology
 - Investigated the mechanism of dorsoventral patterning during vertebrate development
 - Courses taken include: advanced topics in Molecular Biology, Structural Biochemistry, Cellular and Developmental Biology, Molecular Genetics, and Molecular Embryology
- 1994 – 1998 University of California, San Diego – Revelle College La Jolla, CA
B.S. Animal Physiology & Neuroscience, cum laude
Minor in Latin Literature

Professional Experience

- Aug 2016 - present Honolulu, HI
'Iolani School
High School Science Teacher
 - 9th grade General Biology Teacher
 - 11th and 12th grade Global Health Teacher
 - Member of the Technology Advisory Group
 - co2024 Class Co-Adviser: advise class officers and plan events for the class
 - Canvas LMS Specialist: train and support teachers on Canvas use in the classroom
- Aug 2011 - July 2016 Honolulu, HI
Punahou School
High School Science Teacher and Curriculum Resource Teacher
 - Provide training and support for 9 - 12 teachers in developing projects and curriculum integrating technology: Managed Punahou CRT YouTube channel by providing tutorials on various technology tools.
 - Showcase examples of the effective use of technology in teaching.
 - Facilitate professional development workshops for 9 - 12 teachers.
 - Google Apps for Education workshops, usually 3 times per semester
 - 9th grade General Biology: year-long and summer session
 - 10th grade General Chemistry: year-long and summer session
 - Anatomy and Physiology for 10th – 12th grade students
 - Medical Problem Solving: summer session at John A. Burns School of Medicine
 - Homeroom teacher for 12th graders (2015 - 2016)

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August 2012 - present

Global Online Academy

<http://www.globalonlineacademy.org/>

Science Teacher

- Online Medical Problem Solving course for high school students
- Instructional designer and Instructor for an asynchronous, online professional development course: Introduction to Online Learning and Teaching (implemented in April - May 2013).

Summer 2013

Punahou School and Institute for Teaching, Learning and Instructional Innovation

Academy Science Teacher and Curriculum Resource Teacher

- Medical Problem Solving for 11th – 12th grade students at John A. Burns School of Medicine
- Support Summer School teachers with their integrated educational technology needs
- Support Summer School iPad integrated courses
- Help facilitate the iPad and Personalized Learning Workshop

August 2010 - December 201

La Pietra Hawai'i School for Girls

Honolulu, HI

Science Teacher

- Physics, Chemistry, 9th grade physical science, and 7th grade science
- Co-Advisor for Green Club (Environmental Awareness Club)
- Advisor for 7th grade class

Jan 2010 - May 2010

McKinley High School

Honolulu, HI

Chemistry Teacher

- General Chemistry and Honors Chemistry
- Supervised students with their science fair projects in preparation for the state-wide science fair
- Advisor to 12th grade advisory

June 2005 - August 2005

Reseda High School

Reseda, CA

Biology Teacher

- Summer School Biology

Sept 2003 - Dec 2005

Milken Community High School

Los Angeles, CA

Science Teacher

- 7th grade Life Science
- Developed *Fun in the Lab* elective to enhance lab skills and enthusiasm in science for middle school students
- Advisor to a group of middle school students
- Mentor to high school students in the *Mitchell Science and Technology Academy* for independent research

Sept 2002 - Aug 2003

California Science Center

Los Angeles, CA

Program Presenter

- Performed science demonstrations to school groups and to the public
- Assisted in research and development of new public programs
- Developed and supervised activities for Girl Scout Camp-ins
- Taught hands-on science classes for Summer Camp Program

Nan Ketpura-Ching

April 2002 - June 2002

University of California, Los Angeles – Dept. of Life Sciences

Los Angeles, CA

Teaching Assistant for an Undergraduate Developmental Biology course

- Taught three discussion sections
- Course covered broad topics of invertebrate and vertebrate Developmental Biology beginning with fertilization, cleavage, gastrulation, neurulation up to early organ formation and sexual differentiation
- Proctored and evaluated quizzes and exams

Jan 2001 - May 2001

University of California, Los Angeles

Los Angeles, CA

Dept. of Biological Chemistry

Teaching Assistant for the Medical School Human Biological Chemistry and Nutrition Laboratory

- Taught two sections of first-year medical students in a laboratory setting
- Supervised students as they perform experiments in medically related biochemistry and nutrition including experimental data analysis

March 1996 - June 1999

University of California, San Diego – Department of Biology

La Jolla, CA

Laboratory Assistant in the laboratory of Associate Professor Nigel Crawford, Ph.D.

- Investigated the behavior of *Tag1*, a transposable element, in *Arabidopsis thaliana* through the use of transgenic lines
- Performed mutagenesis experiments to screen for mutations in nitrate uptake
- Oversaw general upkeep of the lab by ordering supplies, making various media, and monitoring growth of plants

Publications

Dong Liu, Alyson Mack, Rongchen Wang, Mary Galli, Jason Belk, **Nan I. Ketpura** and Nigel M. Crawford (2001). Functional dissection of the *cis*-acting sequences of the *Arabidopsis* transposable element *Tag1* reveals dissimilar subterminal sequence and minimal spacing requirements for transposition. *Genetics* **157** (2): 817-830.

Juan Larraín, Michael Oelgeschläger, **Nan I. Ketpura**, Bruno Reversade, Lise Zakin and E. M. De Robertis (2001). Proteolytic cleavage of Chordin as a switch for the dual activities of Twisted gastrulation in BMP signaling. *Development* **128** (22): 4439-4447.

José G. Abreu, **Nan I. Ketpura**, Bruno Reversade, E. M. De Robertis (2002). Connective tissue growth factor modulates cell signaling by BMP and TGF- β . *Nature Cell Biology* **4** (8): 599-604.

Catherine Coffinier, **Nan Ketpura**, Uyen Tran, Douglas Geissert, E. M. De Robertis (2002). Mouse *Crossveinless-2* is the vertebrate homolog of a *Drosophila* extracellular regulator of BMP signaling. *Mechanisms of Development* **119** Suppl1: S179-84.

Professional Development and Workshops

June 2019

International Society of Technology in Education (ISTE)

Philadelphia, PA

Attendee

Sept 2018

Hawai'i Science Teacher Association

Honolulu, HI

- **Presenter:** Engaging Students with Chemistry Games

July 2018

EdCamp West Oahu <https://sites.google.com/view/edcampwo>

Ewa Beach, HI

Attendee

Nan Ketpura-Ching

- Nov 2016
School of the Future Conference
● **Presenter:** Empowering students with Metacognition using Google Apps for Education
Honolulu, HI
- Nov 2015
EdCamp Honolulu <http://www.edcamphi.org/>
Volunteer
Honolulu, HI
- Nov 2015
School of the Future Conference
Attendee
Honolulu, HI
- June 2015
Kamehameha Schools Education Technology Conference
● **Presenter:** Online learning spaces to foster collaboration
● Demonstrate how the use of Google Apps for Education allow students in the Global Online Academy to collaborate and interact with each other across many different time zones
Honolulu, HI
- April 2015
Moanalua High School Professional Development Conference
Honolulu, HI
● **Presenter:** What Online Courses Teach Us About Face-to-Face Learning
● Demonstrate how Google Apps can be used as instructional technology tools to fine tune current teaching strategies.
- Nov 2014
School of the Future Conference
Attendee
Honolulu, HI
- June 2014
Kamehameha Schools Education Technology Conference
Attendee
Honolulu, HI
- April 2014
Technology, Colleges, and Community Online Conference
Badge Promotion Lead
<http://www.tcconlineconference.org/>
- Oct 2013
EdCamp Honolulu <http://www.edcamphi.org/>
Session Facilitator: Synthesis projects in middle school / high school science
Honolulu, HI
- Oct 2013
School of the Future Conference
Attendee
Honolulu, HI
- Oct 2013
Technology, Colleges, and Community Online Fall Conference (TCC-fx)
Planning Committee and Attendee
<http://www.tccfx2013.com/>
- April 2013
Technology, Colleges, and Community Online Conference
<http://www.tcconlineconference.org/>
● Presenter and Social Media Team
● **Master Thesis:** Problem-based Learning for Healthy Hearts
● Use of Google Form to survey Anatomy and Physiology students on effectiveness of problem-based learning for concept attainment. Students collaborated using Google Docs and Google Slides to solve medical mysteries relating to cardiac maladies.
- Jan 2013
Online Education Symposium for Independent Schools
Attendee
<http://www.the-oesis.com/>
Marina del Rey, CA

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May 2012
Pacific Region Learning Summit
Problem-Based Learning Workshop Attendee
April 2012
Technology, Colleges, and Community Online Conference
Presenter

Pearl City, HI

<http://www.tcconlineconference.org/>

Professional Associations / Affiliations

- National Science Teacher Association (NSTA) <http://www.nsta.org/>
- Hawai'i State Science Teacher Association (HaSTA) <http://hasta.wildapricot.org/>
- Hawai'i Society of Technology in Education (HSTE) <http://hste.org/>
- International Society of Technology in Education (ISTE) <http://iste.org>

Award

May 2005 *Lishma* – Passion for Learning
Milken Community High School
Awarded for implementing Fun in the Lab elective course for middle school science

Volunteer Experiences

July 2013 – present 'Iolani School 'Ohana Technology Support Person
Curated and developed a Google Drive Tutorial website for class level 'Ohana representatives
<http://iolaniohana.weebly.com/>

Sept 2013 – Aug 2022 'Iolani School Girl Scout Troop 870 Troop Leader
<http://iolanigirlscouts870.shutterfly.com/>

References

Michael Lomuscio Dean of Studies
'Iolani School
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(808) 949-5355 work
(770) 856-2969 cell

Douglas Kiang Academy Computer Science Teacher and Curriculum Committee Chair
Punahou School
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(808) 943-3695 work
(808) 228-8458 cell

Sharon Sikora, Ph.D. Albert Einstein Distinguished Educator Fellow
High School Chemistry Teacher and Science Specialist
Sacred Heart Schools
dr.sharon.sikora@gmail.com
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Bert Kimura, Ph.D. Associate Professor
University of Hawaii, Mānoa. Department of Educational Technology and
Osaka Gakuin University
bert@hawaii.edu
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Activities / Interests

Cooking, knitting, hiking, sewing, cooking, and traveling