

TABT Updates and URLs of the Week for January 2017

Item 1 – Professional Development Opportunity

2017 Japan-U.S. Teacher Exchange Program for Education for Sustainable Development Applications are open for this program with travel to Japan from June 20- July 2. Please visit the program website at <http://www.iie.org/Programs/ESD> for more information or to start an application. The application deadline is January 13, 2017.

Item 2 – Professional Communications & Networking

Gulf of Mexico Exploration Teacher Workshop

Deep Pelagic Necton Dynamics of the Gulf of Mexico (DEEPEND) will present a workshop for educators in grades 6-12 on Saturday, January 21, 2017 at Texas A&M Galveston in the Ocean Sciences Building, 200 Seawolf Parkway, Galveston, TX, 77554. Educators are invited for a one-day workshop to explore the deep, pelagic zone of the Gulf of Mexico. Teachers will receive background content information, inquiry-based learning activities, application to participate in a DEEPEND Research Cruise (Up to two teachers may participate per year based on space availability on the ship.), and take-home lessons, resources & innovative ideas. The workshop is free and teachers receive a \$50 stipend. Registration at <http://outreach.deependconsortium.org/index.php/education/2017-application>. For any workshop questions or problems with registration, email Heather Judkins at Judkins@mail.usf.edu.

Item 3 – Science Update

Pascual, Gloria, et al., “Targeting metastasis-initiating cells through the fatty acid receptor CD36”
(*Nature*, 541:7635, 05 January 2017, Pages 41-45)

The fact that the identity of the cells that initiate metastasis in most human cancers is unknown hampers the development of antimetastatic therapies. Researchers in this study indicate that metastasis-initiating cells particularly rely on dietary lipids to promote metastasis. Human oral carcinoma cells expressing high levels of the fatty acid receptor CD36 initiate metastasis in mouse models, and metastasis is increased by a fatty diet and decreased by blockade of CD36.

Mimitou, Eleni P. et al., “A global view of meiotic double-strand break end resection”
(*Science*, 355:6320, 06 January 2017, Page 40-45)

DNA double-strand breaks that initiate meiotic recombination are exonucleolytically processed. This 5'→3' resection is a central, conserved feature of recombination but remains poorly understood. This research points to nucleosome destabilization or eviction as a defining feature of the meiotic resection landscape.

Item 4 – Quote of the Week for 09 January 2017

“It is our choices that show what we truly are, far more than our abilities.” – J. K. Rowling, writer

Item 5 – URL of the Week for 09 January 2017

eSkeletons

eSkeletons provides an interactive environment in which to examine and learn about skeletal anatomy through the osteology database. Images and content are created by faculty, staff, and students at the University of Texas.
<http://www.eskeletons.org/>

Item 6 – Thanks To Our Sponsors

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Item 1 – Professional Job Opportunity

Independent Sales Representative – BIOZONE

BIOZONE specializes in high school science curricula, and is seeking an independent sales representative based in Texas to promote BIOZONE's product lines. The position seeks a dynamic, experienced sales representative, with a high degree of participation and commitment in achieving sales in each territory. Contact Nadège Stoffel (nadege@thebiozone.com) or call (855) 246-4551. The

Item 2 – Professional Job Opportunity

AP Biology and Biology Teacher

An AP Biology and Biology Teacher position for 2017-2018 at Fort Worth Country Day School. Please contact Sherri Reed at sherri.reed@fwcd.com or read more on the FWCD.org website.

Item 3 – Public Comment Period Open

Foundation High School Program Rules

The public comment period for proposed amendments to graduation requirements for the Foundation High School Program is open and comments may be submitted at [http://tea.texas.gov/About_TEA/Laws_and_Rules/SBOE_Rules_\(TAC\)/Proposed_State_Board_of_Education_Rules/](http://tea.texas.gov/About_TEA/Laws_and_Rules/SBOE_Rules_(TAC)/Proposed_State_Board_of_Education_Rules/).

Item 4 – Science Update

S, et al., “Integrated genomic characterization of oesophageal carcinoma”

(*Nature*, 541:7636, 09 January 2017, Pages 169-175)

The Cancer Genome Atlas Research Network report completed a comprehensive analysis of the two main types of esophageal cancer cases by site of origin and molecular differences. Molecular differences are significant enough that the two types of cancer should be considered separate diseases, especially for therapeutic trials and methods of treatment.

Item 5 – Quote of the Week for 16 January 2017

“If anything is worth trying at all, it’s worth trying at least 10 times.” – Art Linkletter, radio and TV personality

Item 6 – URL of the Week for 16 January 2017

Cornell Lab Migration Map

Watch the wonder and spectacle of bird migration captured on a single map. Using millions of bird observations from participants in eBird and the Great Backyard Bird Count, scientists at the Cornell Lab generated an animated map showing the annual journeys of 118 bird species.

<https://www.allaboutbirds.org/mesmerizing-migration-watch-118-bird-species-migrate-across-a-map-of-the-western-hemisphere/>

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Item 1 – Professional Communication & Networking

New TABT Website

There's a new, updated version of TABT's webpage online. It is at <http://tabt.us>. You'll find a curated archive of websites and open source articles on a large number of subjects, as well as current events, contacts, and forms for the TABT Awards Program. Thanks to Nikki Fitzgerald, the new TABT webmaster who has updated our page. Comments or questions should be directed to Nikki at fitzgeraldc@anahuacisd.net.

Item 2 – Professional Development Opportunity

Watershed STEM Education Partnership Grant Program

The National Marine Sanctuary Foundation offers the NOAA-21st CCLC Watershed STEM Education Partnership Grant program. Eligible applicants are those that have participated in NOAA's B-WET program as a grant recipient or major partner. The deadline for application is February 11, 2017. Information about the grant is on the blog at <https://www.marinesanctuary.org/about-us/blog/>.

Item 3 – Science Update

Liddel, Shane, *et al.*, “Neurotoxic reactive astrocytes are induced by activated microglia”

(*Nature*, 541:7638, 26 January 2017, Pages 481-487)

Reactive astrocytes (A1) appear quickly after CNS injury and are abundant in neurodegenerative diseases, but their role is poorly understood. Researchers in this study identified that astrocytes lose the ability to promote neuronal survival and induce the death of neurons. The findings strongly suggest that A1 astrocytes contribute to the death of neurons in neurodegenerative disorders, and provide opportunities for the development of new treatments for these diseases.

Bian, Lin, *et al.*, “Gender stereotypes about intellectual ability emerge early and influence children's interests”

(*Science*, 355:6323, 27 January 2017, Page 389-391)

The distribution of women and men across academic disciplines seems to be affected by perceptions of intellectual brilliance. Researchers studied young children and determined by age six girls were prepared to lump more boys into the “really, really smart” category and to steer themselves away from games intended for the “really, really smart.”

Item 4 – Quote of the Week for 30 January 2017

“Don't find fault – find a remedy.” – *Henry Ford, industrialist*

Item 5 – URL of the Week for 30 January 2017

Bugguide.net

This is a site for identification, images and information on insects, spiders and their kin in the U.S. and Canada.

<http://bugguide.net/node/view/15740>

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