



# FIRST CHRISTIAN ASSEMBLY

**WELCOME** to First Christian Assembly, an independent church whose mission is articulated by Jesus in Mark 16:15 when he said "...Go ye into all the world, and preach the gospel to every creature". Following this great commission, First Christian Assembly preaches and teaches the gospel of Jesus Christ. In so doing, we trust that God, working through His Holy Spirit will draw souls to salvation in Christ Jesus our Lord.

## **SOLAR-POWERED HORNETS**

The miniscule marvels of God's tiniest creatures continue to amaze scientists. Recently the abdomen of a certain hornet was discovered to have intricate structures that look like space-age solar panels, perhaps yielding insights for new technology.

Looking for some "green" technology to cut your energy bills? Maybe you should check out the Oriental hornet. Unlike many other wasp species, the Oriental hornet becomes most active in the heat of the afternoon. In fact, the industrious insect digs its nest most intensely when exposed to the most extreme rays from the sun. This odd behavior caught the attention of researchers at Tel Aviv University in Israel.

The hornet may be a flying solar panel. Using atomic force microscopy, the team zoomed in on the brown and yellow stripes on the hornet's abdomen. Although the surface, or cuticle, appears smooth, it actually contains layers and layers of microstructures that appear to "harvest parts of the solar radiation." In other words, the hornet may be a flying solar panel.

The actual conversion to electricity is accomplished by the yellow pigment xanthopterin. At this point, however, researchers are still investigating how the wasps use this harvested solar energy. We know that their active digging corresponds with increased absorption of the sun's rays. But we don't know whether this increased activity is simply a result of absorbing heat from the sun. Researchers suspect that something else lies beneath the surface. Does the electrical energy gained "charge up" the wasp to do actual work?

To test this idea, researchers placed this yellow chemical in a solar cell and found that it can indeed absorb sunlight and convert it into electric energy, similar to the silicon-based solar cells that humans have developed. The researchers' attempt to copy the solar prowess of the hornet lacked the same spark, but they hope to refine their models in the future, perhaps as an economical alternative to silicon cells.

Yet another technological marvel with potential application to human technology is the hornet's ability to remove all that extra heat. Like a modern refrigerator, this versatile vespine houses a sophisticated heat pump that keeps it from overheating!

The researchers claim the hornet itself somehow "solved" these design problems by evolving such complex and interdependent structures. Sadly, they remain in the dark about the One who cares for all His creatures-even those pesky hornets. (*Excerpts from Berean Call -12-8-2014*)

## **Ministry Highlights**

### **Announcements:**

- ⇒ **Schedule Change - There will be no Service on Tuesday 12-30-2014**
- ⇒ **Water Baptism - We will be having water Baptism soon, anyone who has not been Water baptized since they have become a believer should see Pastor Joe for details.**
- ⇒ **Philadelphia Access Center – **FUNDRAISING DRIVE** - A corporate sponsor will match every donation dollar for dollar through December 31.**
- ⇒ **New Years Eve - We will continue our tradition by holding a New Years Eve service and dinner on December 31st . We will begin at 6:30 PM. Everyone is invited, however reservations are required. See Gloria Felicione for information and reservations.**

\*\*\*\*\*

**From Pastor Binu John, India:**

**This time as a family**, we are going on a mission trip for a week to the state of Andhra Pradesh on 19th. Christmas season provides us an open door to preach Christ.

**Why family?** It is my desire that not only me and my wife, but our children also to see and feel the reality of cross-cultural missions from their young age to become the next generation missionaries. Therefore we will not be staying in a hotel. We will stay where our missionaries are..we will eat what they eat..we will drink what they drink and we will sleep where they sleep.

Please pray for our trip to be fruitful. We want God to move supernaturally to bring people unto salvation.

(FCA) First Christian Assembly, 1900 S. 11<sup>th</sup> Street, Philadelphia, PA 19148  
 (PAC) Philadelphia Access Center, 1832 S. 11<sup>th</sup> Street, Philadelphia, PA 19148

215-389-6721  
 215-389-1985

**The Philadelphia Access Center** is a ministry of First Christian Assembly. Our mission is *revealing Christ through compassionate service*. Services available at PAC include social services information and referrals, biblical counseling, support groups, volunteer training, and community outreach. All services are free of charge and available to anyone. To learn more, visit us in person (across the street from FCA) or online at [www.philaccess.org](http://www.philaccess.org) or [www.facebook.com/philaccess](http://www.facebook.com/philaccess).

## **WEEKLY SERVICES / MEETINGS**

	<b>FCA</b>	<b>PAC</b>
Sunday	9:45 AM <i>Bible Study</i> 11:00 AM <i>Worship Service &amp; Children's Sunday School</i>	
Monday		7:00 PM <i>Stepping Stones</i>
Tuesday	6:30 PM <i>Prayer (Sanctuary)</i> 7:00 PM <i>Worship (Sanctuary)</i>	
Wednesday	6:30 PM <i>Men's Fraternity (on hiatus)</i>	1:00 PM <i>Women at the Well</i> 1:00 PM <i>Coram Deo</i>
Thursday		6:00 PM <i>Prayer Service</i> 7:00 PM <i>Bible Study</i>
Friday		7:00 PM <i>Right Path</i>

- *Coram Deo*: A men's Bible study and Christian fellowship.
- *Right Path*: A Christ centered support and recovery group for people whose lives have been affected by drug and alcohol addiction. In a warm and friendly atmosphere, we provide loving support and fellowship; in genuine confidential sharing, coupled with a Biblical twelve step model of recovery.
- *Stepping Stones*: A Christ centered support group for men and women impacted by a loved one's addiction. In a warm and friendly atmosphere, we provide loving support, fellowship, confidential sharing, and intercessory prayer.
- *Women at the Well*: This group is Biblically based and promotes hope, healing, and fellowship for women impacted and struggling with brokenness.



### **PRAYER REQUESTS**

- Ministries (present and future) at First Christian Assembly and the Philadelphia Access Center
- Christians around the world being persecuted for their faith.
- Our supported missionaries
- For our Pastor and his family.

### **This and That**

"My business is, with all my might to serve my own generation; in doing so I shall best serve the next generation, should the Lord Jesus tarry... The longer I live, the more I am enabled to realize that I have but one life to live on earth, and that this one life is but a brief life, for sowing, in comparison with eternity, for reaping."

~ *George Muller, Eevangelist*