

# *Society of Medical Friends of Wine*

SAN FRANCISCO, CALIFORNIA

*A Non Profit 501 C 3 Corporation*

**JUNE 2017**

278<sup>TH</sup> Quarterly Dinner  
The French Club  
Cercle de l'Union  
San Francisco, CA June 9, 2017

## **The Menu and Wine Pairings**

Passed Hors d'Oeuvres	2016 Uvaggio Vermentino, Lodi
Watercress Soup	2014 Domaine J.C. Girard Madoux, Chignin, Savoie
Wild Salmon, Salmon Roe and Uni Beurre blanc	2014 Domaine Chavy-Martin, Puligny-Montrachet Les Charmes 2013 Domaine Darviot-Perrin, Chassagne-Montrachet 1er cru Les Bondues
Seared Muscovy Duck Breast	2005 Domaine Rene Bouvier, Gevrey-Chambertin, "Racines du Temps" 2015 Domaine Dery Freres, Gevrey-Chambertin
Fromage de France assortis	2006 Domaine Jean Fery et Fils, Pernand-Vergelesses Blanc
Pear and Almond Tart	2011 Domaine Ernest Burn, Pinot Gris, Grand Cru Goldert



The elegant dining room of the French Club awaits its guests



Young and aged Gevrey Chambertin, decanted



Our members and guests at dinner



Our featured speaker Mel Knox (R) and special guest from France Jean-Pierre Giraud (L)

All photos courtesy of Dr. Jim Gallagher

Another glorious event for our members and their guests occurred at the French Club on Friday June 9<sup>th</sup>, and the above pictures help capture the festivity of the evening. Marion and I had just returned from a two week sojourn in Provence and the Pyrenees, and that included a stay in Toulouse, home of the French Club's executive chef Lionel Balbastre. We had some delicious food while traveling, but I can sincerely state that what we had in a celebrated restaurant in Toulouse paled before what Lionel offered us at this dinner. The Watercress Soup was delicate and inviting, the wild salmon provided the perfect foil to discuss the options of pairing white Burgundy vs. red Burgundy with salmon, and the duck may have been the most delicious duck preparation I have ever had.

Our thanks and kudos to chef Balbastre, to Gerant (manager) and Sommelier Marcus Garcia and his staff for outstanding food and wine service, and of course to our member Dr. Tom Paige for hosting the event.

My brief notes on the wines we enjoyed that evening follow.

With the reception, we had 2016 Uvaggio Vermentino supplied by our guest speaker, Mel Knox. Mel and a partner have been producing wines from a facility in Lodi featuring Italian grapes, and this one was delightfully fresh and fragrant and an excellent aperitif. Members unfamiliar with the varietal

commented that had they been served the wine blind they would have guessed Sauvignon Blanc due to the light grassiness in the aroma.

The rest of the wines were chosen and provided by our member, Dr. Larry Dennen, who did his usual outstanding job of wine and food pairing and offered educational comments about each wine's heritage and producer and his thoughts behind the pairings.

The Chignin from Savoie was a treat to drink, as I am not sure a wine from this area has ever been served at a previous Medical Friends of Wine event. It had a complex nose featuring subtle herbs and a lovely acid balance, pairing beautifully with the watercress soup.

Chardonnay-based white Burgundy versus Pinot Noir-based red Burgundy with the salmon? Preferences were split in a straw poll. I preferred the Puligny Montrachet, which was a complex yet elegant white Burgundy with lots of length to the finish and a delicate kiss of oak well balanced with fruit. The Chassagne red is a rare wine—indeed Larry mentioned that this vineyard is a small red wine island surrounded by a sea of white (vines). This vineyard site is just a stone's throw from the celebrated grand crus of Montrachet. It was a light bodied and fruity red Burgundy, and as mentioned, about half of our members preferred it over the white with the salmon.

The two Gevrey-Chambertins showed the potential for development of Burgundy with bottle age. The 2005 was rich and flavorful, though still with tannins and a youthful side to it. It paired beautifully with the rich sauce of the duck. The 2015 on its own was delicious and showed youthful promise. It does need years of development to achieve the class of the 2005.

With cheese Larry showed his preference for serving an aged white wine with flavorful cheeses. The 2006 Pernand-Vergelesses was another rare wine. Its aged oxidative richness was complemented by persistent acidity that freshened the finish, and it indeed paired very nicely with the trio of cheeses from the Pyrenees, Normandy, and the Savoie. Starting with white wine, passing through a number of reds, and returning to white offered a symmetry to our drinking enjoyment, and also prevented the palate fatigue that might have occurred with additional red wines at the end of the meal.

For a finale Larry again showed his penchant for creatively thinking outside of the box with wine and introducing us to ideas we might not have thought of. Instead of choosing a very sweet wine that as Larry mentioned could be considered dessert in itself, he went with a rich one instead and invited everyone to try it before eating the sweet pear and almond tart. The 2011 Domaine Ernest Burn from Alsace had a golden robe and that unctuous feel on the palate that high quality and well made Pinot Gris possesses.

Again, thank you so much to Larry for his outstanding selections and his educational tour for the Society. These wines are available at special prices for members of the Society . Please e mail [larry@encorewineimports.net](mailto:larry@encorewineimports.net) or call Dr. Dennen directly at 510-921-4840 to place an order and to arrange delivery.

2014 Dom J. C. Girard Madoux Chignin, Savoie 10.00/ bt  
2014 Dom. Chavy Martin Puligny-Montrachet Les Charmes 45.00  
2014 Dom Darviot-Perrin Chassagne-Montrachet 1er Cru Les Bondues 45.00  
2005 Dom. Rene Bouvier Gevrey-Chambertin "Racines du Temps 54.00  
2015 Dom. Derey Freres Gevrey-Chambertin 31.00

2006 Dom Jean Fery et Fils, Pernand-Vergelesses Blanc Les Combottes 25.00  
2011 Dom. Ernest Burn, Pinot Gris Grand Cru Goldert 23.00

Speaking of education, our guest speaker for the evening, Mr. Mel Knox, is an old friend with a long history in and an encyclopedic knowledge of the California wine industry and the barrel industry. He has been importing French oak barrels for California wineries for decades, and he shared with us information about flavor components derived from wood and differences in forests, harvesting, seasoning, toasting, and coopering of barrels. Mel also provided, courtesy of Simi winery, two barrel samples of Chardonnay from two different ages and styles of French oak to demonstrate his points. A full text of Mel's speech follows.

We have three very exciting summer events in store so please do read the calendar, and I hope to see you there.

Bob Blumberg, Cellar Master, Society of Medical Friends of Wine.



**WINE AND BARRELS**  
**By MEL KNOX**

Until relatively recently, coopers played an important role not only in the wine business but in myriad aspects of daily life. Almost all containers --- buckets, barrels, tanks --- were made by coopers from various woods.

Herodotus talked about barrels made from palm trees, but it was really the Celts who developed them. The Gauls surprised the Romans by hurling barrels full of burning oil at them. Indeed, French winemakers still do this to Italians and Spaniards trying to sell their wines in France. Many forests were planted with the plan of using the logs for building battleships. The barrel business is a good example of turning swords into plowshares.

Barrels were made to hold salted fish, flour, gunpowder, oil, turpentine, salt, sugar, butter, and many other household commodities, since they not only retain even liquids safely but also keep the elements out and are easy to maneuver.

As Europeans colonized the New World, they inevitably took their coopering skills with them. John Alden, one of the more famous early colonists of Plymouth, Massachusetts, was a master cooper, and by 1648 there were enough coopers to form a guild in this New England colony. America's important export trade of staves and logs to Europe began slightly later in the 17th century when the Spanish controlled large parts of what is now the USA. With the advent of plastic and metal containers, most of the barrels made today are used by the wine and spirits makers.

One of the most fascinating questions in wine is simply put: where do the flavors in wine come from? When I first got into the wine business, back in the dark ages before there were successful national publications devoted to wine, people told me that Meursault had an 'oatmealy' quality whereas Chassagne-Montrachet had a quality more similar to toasted bread. All of this was due to the soil, I was told. But sometimes Meursault could resemble Chassagne and vice versa. Later I discovered that winemakers in Meursault bought from a cooper who used steam to bend staves, whereas winemakers in Chassagne bought from a cooper who used fire to bend the staves. But, strangely believe it, sometimes the cooper in Meursault sold in Chassagne and vice versa.

So often I am reminded of what a vigneron in Meursault once told me, If the wine is bad, we tell them it's terroir. And sometimes, it is easier to give a simple, romantic answer –it's the soil, dummy'—than to give a boring scientific one. Of course, all of you have been to medical school and are used to long boring explanations and that's why Bob asked me to speak today.

What are the factors in barrel quality? How do these factors translate into wine flavor?? I see several factors as crucial:

1. Species of oak and region of origin
2. Method of seasoning/drying.
3. Manufacturing techniques.

OAK

There are hundreds of species of oak, all of which can be broadly separated into two categories, red and white. The red oaks are porous and cannot therefore be relied upon for tight cooperage. For wine three sorts of white oak are most important, one American and two European, all of them belonging to the botanical sub-group *Euquercus*:

1. *Quercus alba*, also known as American white oak. This general name is also applied to other American oak species including *Quercus bicolor*, swamp white oak; *Quercus lyrata*, overcup oak; *Quercus durandii*, Durand oak; *Quercus michauxii*, swamp chestnut oak; and *Quercus prinus*, chestnut oak. Some of these species can hybridize with each other.

2. *Quercus sessiliflora*, also known as sessile oak, *Quercus rouvre* or *Quercus petraea*. This species tends to produce tight-grained oak. Its crown forms high on the tree and is relatively tight. This species is found all over Europe, notably from northern France to Russia.

3. *Quercus robur*, also called pedunculate or variously English, French and Russian oak. This species looks like a classic English oak tree, with a wide crown that forms relatively low. The wood from this species is wide-grained.

The anatomy of different oaks has implications for barrel-making. A trunk can be thought of as a bundle of tubes or vessels and fibers running parallel to the trunk with groups of fibers called rays running radially from the outside towards the center of the trunk. Oak is non-storied; the longitudinal tubes and fibers overlap so as to give strength. (With a soft wood like pine the tubes and fibers are stacked so the wood is softer) It is also ring-porous; there are distinct bands of large and small pores or tubes laid down at different times of the year.

Oak as a species is rich in tyloses, which are structures that plug the tubes. This is what makes it particularly good for holding liquids, as the path of the liquid through the wood is blocked by these tyloses. American white oaks, *Quercus alba*, are the richest in these tyloses, which is why the barrel staves can be sawn into shape without risk of leakage. With European oaks there are fewer tyloses so the wood is more porous and must be split to follow the tubes and then bent so that all the tubes are parallel to the stave, thus minimizing leakage.

The differences between American and European species are quite dramatic. Sadly I do not have a sample of a wine made in American oak, but one sip of Bourbon, which by law must be aged in new American oak barrels, will give you a hint of what American oak is like.

Within the category of species, we have the effects of soil and climate. In France, a country the size of Texas, we talk of different regions: Nevers, Allier, Vosges, Limousin, etc. Yet in American oak we just began to look at geographical variation a few years back.

The first question people ask me about French oak is where does all that oak come from and will there be any left for the future? The long answer is a bit complicated, but the short one is very simple. Supply of French oak is one thing we do not have to worry about. Unlike other countries, which have cut down huge forests to make toilet paper, France has managed its forests quite well. About one quarter of France is

covered with forest, and about one third of this is oak of the two species of oak important to French coopers, and there are about 6 million acres of forest where these two species dominate.

It was estimated in 1986 that there were 430 million cubic meters of these two species in France. Now there are around 530 million m<sup>3</sup>. For every m<sup>3</sup> cut down in a year, three grow.

The French government actually runs the forests at a profit and still manages to provide jobs.

The demand for American oak is quite strong due to the rise in Bourbon consumption.

Since the fall of the Iron Curtain, coopers have been sniffing around Hungary, Poland and Russia. Several French cooperages have established outposts in Hungary, perhaps due to a combination of friendly business climate, good forestry management practices, and the quality of the wood. In many cases the results have been excellent, although inconsistent.

Oak species and origin have always been considered important for barrel flavor.

The second factor is also quite important, the seasoning of the wood.

#### AIR DRYING VERSUS KILN DRYING

It has long been known that natural seasoning in the open air is a good thing for wine and wine barrels. Barrels made from staves dried over two years is smoother, less aggressively oaky, and more subtle than wine made from staves not dried as long. The why of this has not been studied much but we have learned a lot in the past twenty years.

It has been traditional to dry American oak artificially in a kiln when making Bourbon barrels. Folks liked the flavor. As coopers in the Midwest and elsewhere have seen the potential of the wine business, they have worked at tailoring their product for wine. This has included not only cosmetic changes but also substituting natural seasoning for kiln drying. Natural seasoning is obviously more expensive, but winemakers are willing to pay the extra costs, particularly if the winemaker can replace an even more expensive French barrel.

Wines, particularly wines naturally low in tannins themselves, can taste aggressively tannic after being matured in barrels made from kiln-dried, as opposed to air-dried, wood. It has been assumed that air-drying extracts some wood tannins. Where wood is being seasoned, one can see a black substance on the ground, and this was assumed to be tannin excreted by the wood. Australian research suggests that seasoning may be a much more complex process than was previously thought.

In an Australian study lots of the same wood were dried in Australia and in France. The Australian lot, dried under hot and dry conditions, was analyzed and compared to the lot aged in France under cool and moist conditions. As the rate of chemical reactions increase dramatically with temperature rise, differences were to be expected. It seems that the concentration of certain lactones, the so-called 'whisky' lactones, was much higher in wood dried in Australia.

So, the length of seasoning and the place where the wood is dried are both important.

Studies in France indicate that molds and enzymes formed on and in the wood during seasoning can neutralize bitter phenolics in the wood. At the same time, glucoses and polysaccharides are released from the wood. This process takes at least eighteen months.

Other studies done in Australia indicate that the sensory thresholds for tannins for various oaks change with seasoning. The more French oak is seasoned, the higher the threshold for tannin. In other words, the longer the wood is seasoned the less the wine tastes tannic.

#### MANUFACTURE:

To make a barrel, oblong lengths of oak—called staves-- are heated and bent. How this is done has a profound influence on wine flavor. Natural gas, steam, boiling water, wood fire, and a combination of various systems are used.

Shaping the barrel over a wood fire is the technique that most profoundly impacts flavor. Wood fire inevitably toasts the inside of the barrel to a degree that varies according to the heat of the fire and the length of time the barrel is over it. The following terms are used, although they are imprecise.

Light toast: There is little color change in the wood. Wines aged in these barrels are usually quite fruity but can be somewhat tannic. As the toast on the inside of the barrel acts as a buffer between wood tannins and the wine, wood used for light toasted barrels must be well-seasoned.

Medium toast: The wood is browner, probably having been 'toasted' over the fire for approximately 15 minutes. The influence of this wood on the wine is more important. Wines aged in such barrels are said to have smells of vanilla and coffee. The greater toasting provides a buffer between the alcohol in the wine and the wood tannins. Therefore, wines aged in these barrels will normally be less tannic than those aged in light toast barrels.

Heavy toast: The wood is very dark. Wines aged in these barrels are usually marked by the heavy toast with aromas of roasted coffee beans, toasted bread, ginger, nutmeg, and smoked meats.

Perhaps the most important thing I have learned from selling barrels is this: there is a relationship between the length of air drying and the manifestation of toasty flavors in the wine. Simply put, the longer the wood is dried, the more subtle the oak flavors.

The above flavor descriptions apply to wine aged in French oak barrels. The word 'char' is usually associated with American whiskey barrels, which are made over steam or natural gas but then set on fire with a device one recent observer has likened to a flame thrower. Traditionally, American oak wine barrels were simply un-charred Bourbon barrels, but now American cooperages will toast to the customer's specifications.

Some cooperages will 'toast' the heads, with an electric device similar to a waffle iron or electric heater.

Oak grain. French oak is classified by wine-makers and coopers as either tight-grained or wide-grained. Staves are essentially cuts of wood fashioned from transverse sections of the tree. The ends of each stave therefore reveal growth rings from the life of the tree. Tight-grained wood can be separated from wide-grained wood by a glance at the end of the stave.

Wider-grained wood tends to be more tannic than tight-grained wood because of the larger vessels. Analytically, wide-grained wood is about ten per cent tannin; tight-grained around seven per cent. Thus wide-grained wood needs longer air-drying lest the wine aged in it be too bitter.

Although most coopers divide wood by forest so that tight and wide grained woods are worked together, others may divide wood into tight and wide grained woods, thereby sometimes dividing the two species.

Now Bob here, who in his work life asks questions like, “could we replace MRI with Ouija boards...X Rays with the Magic Eight Ball??” , asked me to talk about barrel alternatives, also known as quercus fragmentus.

Barrels are expensive, and to store and maintain them is not cheap either. Air-conditioned and humidified cellars are very expensive. The first successful idea in this area came to a friend of mine: why not pop the head off an old barrel and insert some new staves, using something that looked like the plastic rack in a dishwasher. He built and sold a business based on this idea. Other companies have created oak chips, oak balls, and ‘chains’ of oak that are suspended into the barrel from the bung. Some people use what we call ‘plank in a tank’. Large staves are placed in a large tank, and sometimes oxygen is bubbled in so as to mimic a barrel. One company will take a few gallons of unoaked wine and doctor the wine twelve different ways with different treatments. You decide what you like, and they will do the work for you. By my guess they are treating over 20 million gallons a year.

So, the modern wine maker is confronted with a wide variety of choices:

1. French, American or Eastern European oak barrels... French barrels cost around \$1000 and Hungarian about 2/3 that. American oak can be had for \$250-440, depending on quality. In three to five years, these barrels will lose 95% of their value.
2. Oak seasoned for different periods
3. Tight or wide grained oak
4. Different toast levels.
5. Barrel alternatives

## FROM THE MEDICAL LITERATURE

### **Are grapes and thus wine good prophylaxis for the aging brain?**

Reviewed by Daniel D. Bikle, MD, PhD

Lee et al.<sup>1</sup> in a small randomized, placebo controlled, double blinded trial evaluated whether the consumption of 36g of freeze-dried grape powder twice a day for 6 months would alter cognitive decline in comparison with a placebo identical in appearance but polyphenol-free. Of the 356 mg of polyphenols in this daily dose of grape powder, resveratrol makes up just 0.14%. There were 5 subjects of comparable age (66-80yrs, mean 72yrs, 50% female) in each group selected on the basis of cognitive deficit and/or personality change present for at least 6 months as observable by a physician and/or close contact of the subject whose history deemed reliable by the subject's physician. These individuals were assessed at baseline and after 6 months with an extensive battery of neuropsychological assessments (30 in all) and neuroimaging with <sup>18</sup>F-deoxyglucose (FDG), analyzed by standardized volume of interest (sVOI) methods and statistical parametric mapping software dedicated to analysis of brain PET. 47 sVOIs were evaluated. Because of the small number of subjects, statistical correction for multiple comparisons was not made.

The authors found significant differences on neuroimaging in two of the 47 sVOIs, namely the right superior parietal cortex and the left inferior lateral anterior temporal cortex, which showed a decline in metabolism in the placebo group (all five declined) but not in the grape powder-fed group (4/5 improved or remained at baseline). Moreover, this latter group did not show a decline in any of the other 45 sVOIs. The authors state that these two sVOIs that differed between the two groups are known to be affected in early stages of Alzheimer's disease. The statistical comparison of components of the neuropsychological battery did not show significant benefits of the grape powder between the groups, but the group ingesting the grape powder did show a significant improvement in attention/working memory over baseline.

What are we to make of this study? Double blinded Randomized Controlled Trials comparing grape components on cognitive function are few and far between. This study is certainly carefully done, and the results are consistent with animal studies. But it is small, and the findings could easily be due to chance, given the large number of comparisons and limited number of those that reached significance. Quite rightly the authors call for larger studies. That said, it is nice to think that a little red wine rich in polyphenols might keep our brains sharp as we enter into senior status. Whether the small amount of resveratrol in grape powder can claim any credit is a different question.

1. Lee J, Torosyan N, Silverman DH. 2017. Examining the impact of grape consumption on brain metabolism and cognitive function in patients with mild decline in cognition: a double-blinded placebo controlled pilot study. *Exper Gerontol* 2017; 87: 121-128.

### CALENDAR OF UPCOMING EVENTS

Vintage Tour of the Anderson Valley	Saturday July 15, 2017
Cheese and Wine Tasting led by Janet Fletcher, Emeryville	Sunday August 6, 2017
Kenefick Ranch Wine Tasting and Luncheon, Calistoga	Sunday August 26, 2017
279 <sup>th</sup> . Dinner, Piazza di Angelo, Mill Valley	Sunday October 8, 2017
79 <sup>th</sup> . Annual Dinner, Nikko Hotel San Francisco	Saturday January 20, 2018