# DESCRIBING THE TECHNOLOGY IN AIA PROCEEDINGS

Administrative Patent Judge Russell Cass Administrative Patent Judge Kimberly McGraw Charles R Macedo, Amster, Rothstein & Ebenstein LLP Brian Murphy, Haug Partners LLP

November 1, 2022 NYIPLA PTAB Committee

> UNITED STATES PATENT AND TRADEMARK OFFICE

# Who is your audience?

- Not a District Court trial no jury
- Decided by a panel of three APJs
  - APJs with technical background and experienced in patent law
  - At least a bachelors in engineering or science
  - Not every APJ on the panel may have same level experience in technology at issue
- Paper record primarily



# **Timeline of an AIA Proceeding**





## Where to include technology descriptions

- Petition
- Petitioner's Expert Declaration
- Patent Owner Preliminary Response/Declaration
- Patent Owner Response/Declaration
- Reply/Declaration
- Sur-reply
- Oral Hearing



## **Questions/Comments**

# Where to include technology descriptions

## Petition

- Background/Separate Technology Overview Section
- Overview of Patent
- Summaries of Prior Art References
- Claim Construction
- Explanation of Combination of References
- Applying Prior Art to Claims



## **Expert declaration**

- Background technology tutorial
- Defining/explaining technical terms and concepts
- Expanding on technology in the patent/prior art/argument
- Discussing additional references/materials



## Patent Owner Preliminary Response and Patent Owner Response

- Different Goals for Preliminary Response and Response
- Preliminary Response:
  - Explain why trial should not be instituted.
    - Discretionary Denials
    - Missing claim elements
    - Error in Petition
- Response
  - Address the merits focus on holes in Petitioner's argument

## **Reply and Sur-reply**

- Focuses on disputed issues
- Opportunity to focus the panel in on the relevant evidence to support the case
- Highlight inconsistencies in arguments
- Reply can include declaration with additional technology descriptions and figures
- Can discuss deposition testimony



# Tips for addressing technology descriptions

## Using modified/annotated figures

- Highlighting and/or labeling **relevant** portions
- Adding arrows and descriptors
- Color coding to match claim elements
- Combining figures from different references to show a combination
- Creating new diagrams to show operation of patent or prior art



# Situations that may benefit from additional explanation

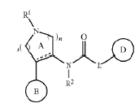
- Product specifications
- Technology standards
- Unpredictability
- Teaching away/technical obstacles
- Inherent disclosures



## **Questions/Comments**

# Are the visuals effective in these examples?

## Claim 1:



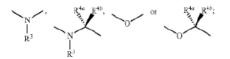
1. A compound represented by the formula

wherein:

ring A is a piperidine ring or a pyrrolidine ring and each straight line is a single bond and <u>...</u> is a single bond; ring B is an aromatic ring optionally having substituent(s); ring D is an aromatic ring optionally having substituent(s).

wherein 6-quinolyl is excluded;

L is a group represented by the formula



 $R^2$ ,  $R^3$ ,  $R^{4a}$  and  $R^{4b}$  are each independently a hydrogen atom, an optionally halogenated  $C_{1.6}$  alkyl group or an optionally halogenated  $C_{3.6}$  cycloalkyl group, or  $R^2$  and  $R^3$  are optionally bonded via an alkylene chain or an alkenylene chain, or  $R^{4a}$  and  $R^{4b}$  are optionally bonded via an alkylene chain, or an alkenylene chain;

R1 is a hydrogen atom or a substituent;

m and n are each independently an integer of 0 to 3; and m+n is an integer of 2 to 3;

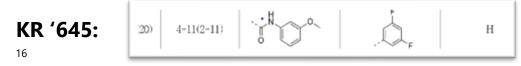
provided that when L is a group represented by the formula



wherein each of R<sup>4a</sup> and R<sup>4b</sup> is as defined above, then ring D is an aromatic ring having substituent(s); excluding: N-[4-(biphenyl-4-yl)piperidin-3-yl]-N'-[naphthalen-2-yl)urea; or a salt thereof.

### **Prior Art Disclosures:**

**EP '721:** N-[4-(4- {[3-[(anilinocarbonyl)(butyl)amino]-4-(3-fluorophenyl)pyrrolidin-1yl]methyl}phenoxy)phenyl]methanesulfonamide.





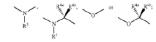
## Petition: Example 1 Claim

1. A compound represented by the formula

#### wherein:

ring A is a piperidine ring or a pyrrolidine ring and each straight line is a single bond and **\*\*\*\*\*** is a single bond; ring B is an aromatic ring optionally having substituent(s); ring D is an aromatic ring optionally having substituent(s), wherein 6-quinoly1 is excluded;

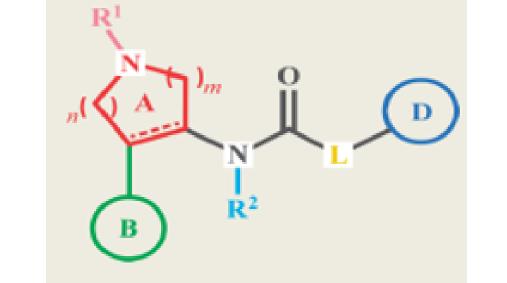
L is a group represented by the formula



R<sup>2</sup> R<sup>3</sup>, R<sup>4a</sup> and R<sup>4a</sup> are each independently a hydrogen atem, an optionally halogenated C<sub>1,a</sub> alkyl group, or R<sup>3</sup> and R<sup>3</sup> are optionally bencied via an alkyletic chain or an alkenylene chain, or R<sup>4a</sup> and R<sup>4b</sup> are optionally boncled via an alkylene chain or an alkenylene chain; R<sup>4</sup> is a hydrogen atom or a substituent; m and n are each independently an integer of 0 to 3; and m4n is an integer of 2 to 3; provided that when L is a group represented by the formula

R

wherein each of R<sup>4</sup>\* and R<sup>4</sup>\* is as defined above, then ring D is an aromatic ring having substiment(s); excluding: N-[4-(bipheny]-4-yl)piperidin-3-yl]-N-[naphthalen-2-yl]urea; or a salt thereof.

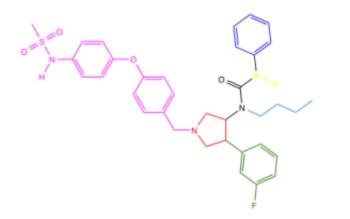




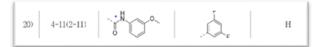
## Petition: Example 1 Prior Art Disclosures

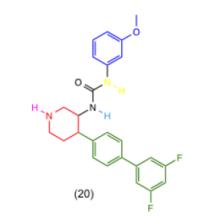
## EP '721

N-[4-(4- {[3-[(anilinocarbonyl)(butyl)amino]-4-(3fluorophenyl)pyrrolidin- yl]methyl} phenoxy)phenyl] methanesulfonamide.



## KR '645

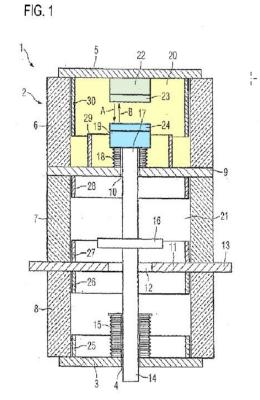






## Petition: Example 1 Claim Chart

Claim Limitations	Disclosed in EP '721	Disclosed in KR '645
$ \begin{array}{c} \mathbf{R}^{1} \\ \mathbf{N} \\ \mathbf{A} \\ \mathbf{R}^{1} \\ \mathbf{M} \\ \mathbf{R}^{2} \end{array} $ $ \begin{array}{c} \mathbf{D} \\ \mathbf{D} \\ \mathbf{D} \\ \mathbf{R}^{2} \end{array} $		
1. A compound represented by the formula $ \begin{array}{c}                                     $	Compound 3 of EP '721, has a pyrrolidine ring, which is depicted in red in the drawing above. The pyrrolidine ring of Compound 3 has all single bonds. Compound 3 of EP '721 also contains an amino carbonyl moiety, which is depicted in black.	The KR Compounds have a piperidine ring, which is depicted in red in the drawing above. The piperidine ring of the KR Compounds has all single bonds. The KR Compounds also contain an amino carbonyl moiety, which is depicted in black.
wherein: ring A is a piperidine ring or a pyrrolidine ring and each straight line is a single bond and <u></u> is a single bond;		



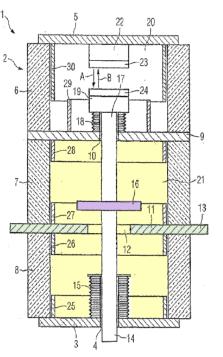


FIG. 1

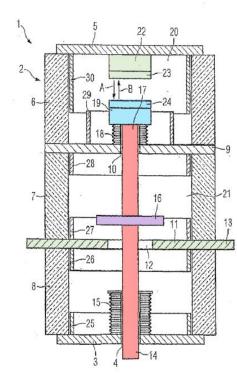
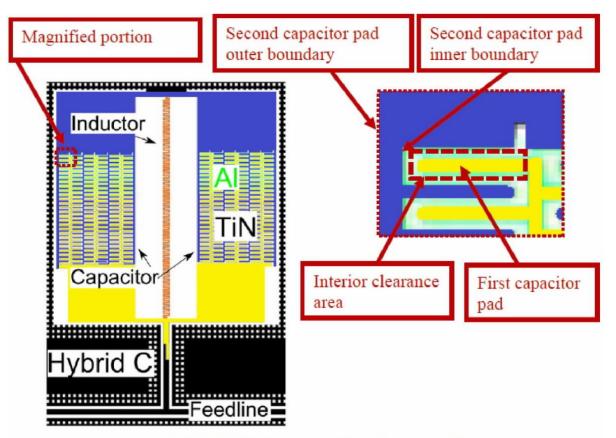


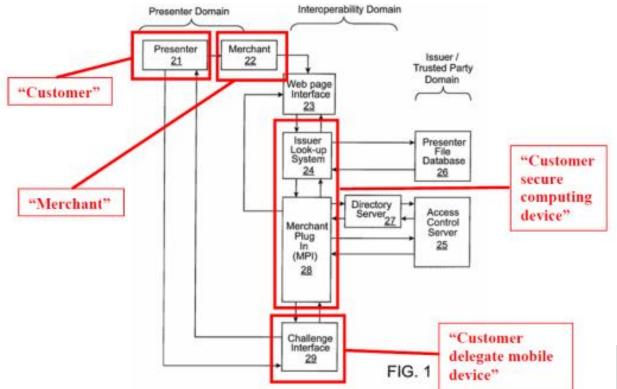
FIG. 1

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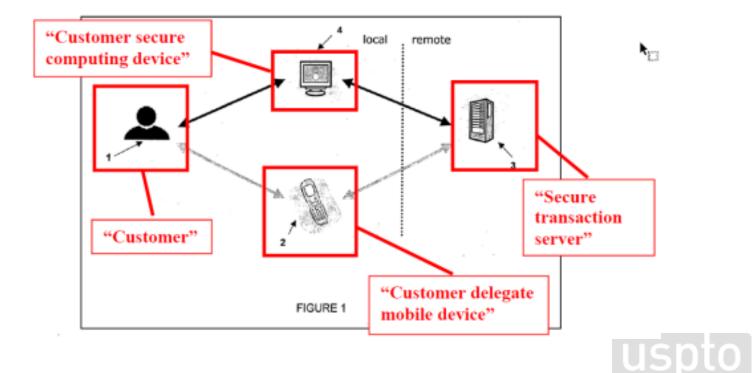


IBM-1010, Fig. 1 (partial and annotated)

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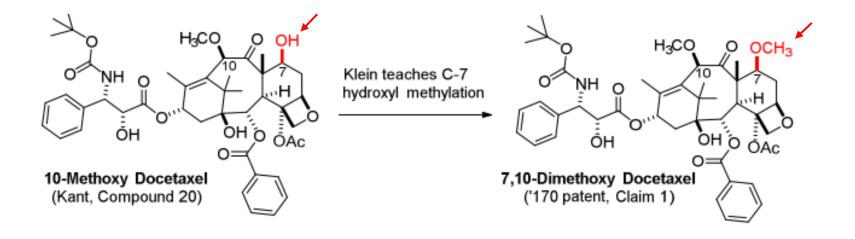






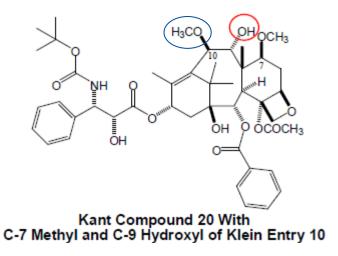
## **POPR: Example 5**

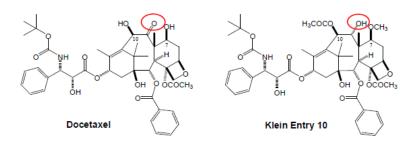
## **Petitioner's Argument:**





## **POPR: Example 5**



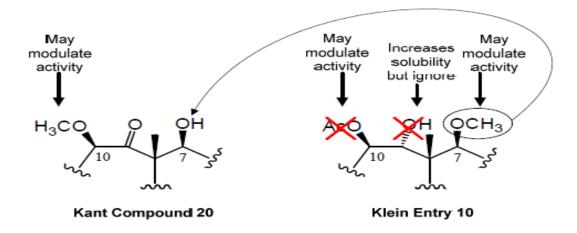


Mylan fails to explain why a POSA would want to ignore the key teaching of Klein and lose these benefits by changing its key C-9 modification back to a C-9 oxo group to obtain cabazitaxel.



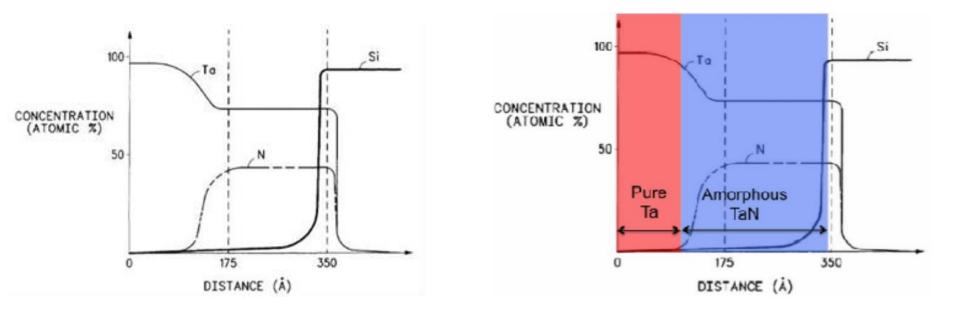
## **POPR: Example 5**

In reality, Mylan's analysis requires perfect hindsight by having the POSA select only the C-7 methyl from Entry 10 in Klein and rejecting all the other teachings of Klein to modify the Kant 20 compound:



Mylan's cherry-picking approach should be rejected.







## How should technology description be handled at the oral hearing?

## **Oral Hearing**



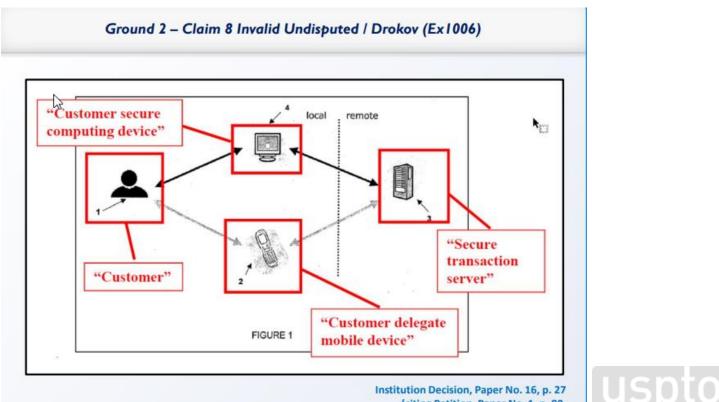
- Panel is very familiar with the record at this stage
- General technology overview typically not helpful
- Focused discussions on disputed technical issues can be helpful
- Demonstratives limited to what is already of record
- Type of Hearing: Virtual vs. In person
- Animation and video require advance approval



## **Demonstratives**

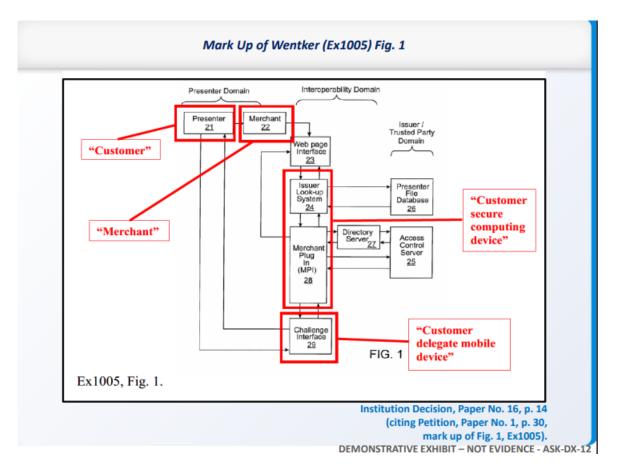
- Typically demonstratives due 5 days before hearing (can be modified)
- PTAB hearing rooms contain an Elmo projector and laptop projector
- Parties must provide their own laptop
- Currently, PTAB has HDMI, VGA, and Mac connections only
- Different judges use demonstratives differently





Institution Decision, Paper No. 16, p. 27 (citing Petition, Paper No. 1, p. 80, marked up version of Fig. 1 from Drokov, Ex1006).

DEMONSTRATIVE EXHIBIT - NOT EVIDENCE - ASK-DX-7



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### Applying the Wands Factors to EP '721

#### The quantity of experimentation necessary (1)

Routine experimentation will suffice because all of the steps needed to make and purify Compound 3 were known (Ex. 1011, Crimmins Decl., at ¶ 64)

#### 2 The amount of direction or guidance presented

Skilled artisans have all of the direction needed based on the disclosed structure and generally available knowledge (Id. at ¶¶ 49, 55, 62, and see Appendix B)

#### The presence or absence of working examples 3

Dr. Hunt agrees that Compound 3 could be made (Id. at ¶ 50)

#### The nature of the invention

EP '721 discloses chemical compounds that could be readily made (Id. at ¶¶ 49, 58)

### Applying the Wands Factors to EP '721 (Continued)

#### The state of the prior art 5

The organic chemistry knowledge needed for synthesizing the compounds is well known (Id. at ¶¶ 52, 59; Ex. 2053 at 10-22)

### The relative skill of those in the art

Those of ordinary skill in the art are highly skilled and educated (Ex. 1011 at ¶ 60)

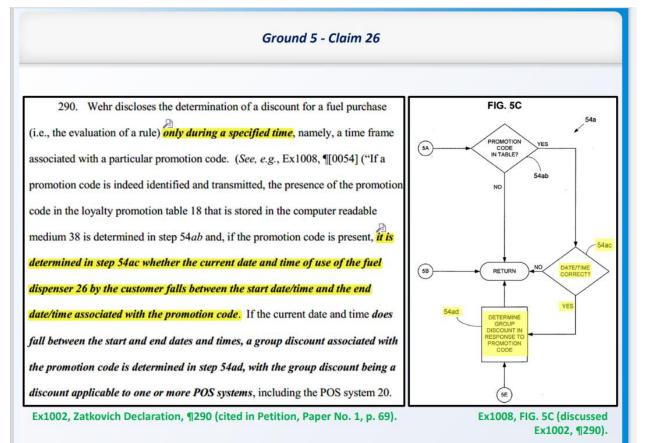
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The predictability or unpredictability of the art

Synthetic organic chemistry is predictable (Id. at ¶ 61)

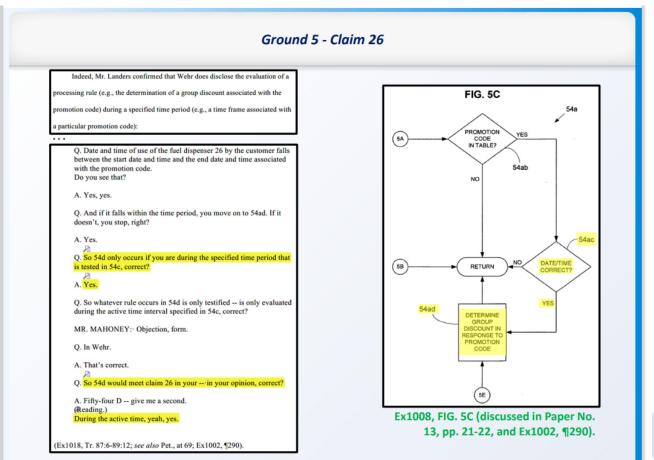
#### The breadth of the subject matter

Only one compound needs to be enabled (*Id.* at  $\P$  57)





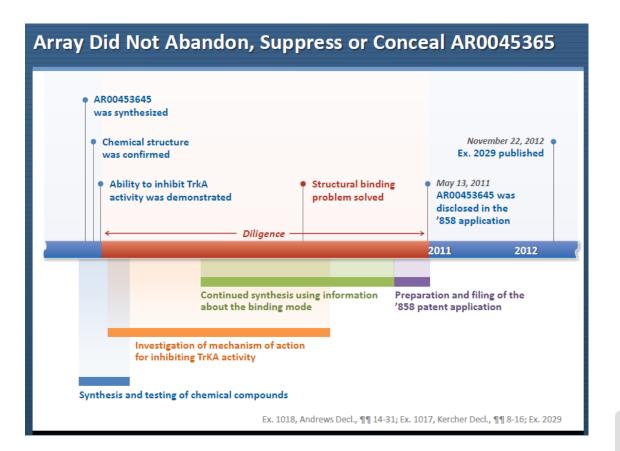
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE - ASK-DX-43



Petitioner Askeladden L.L.C.'S Reply to Patent Owner's Response, Paper No. 13, p. 21-22 .

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE - ASK-DX-44

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## **Take-aways**

- Many ways to effectively describe the technology
- Most effective way may depend on (i) the technology itself or (ii) the issues presented in the pleadings
- Focus on describing the technology that is important; discuss related technology as needed
- Make effective use of expert declarations



## **Questions/Comments**

