



**OSCAR BC**

Connecting Care • Creating Community

## GreaseMonkey Webinar – September 25, 2021

Speakers: Drs. John Robertson, John Yap, Stan Hurwitz



# OSCAR BC

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## Disclosures:

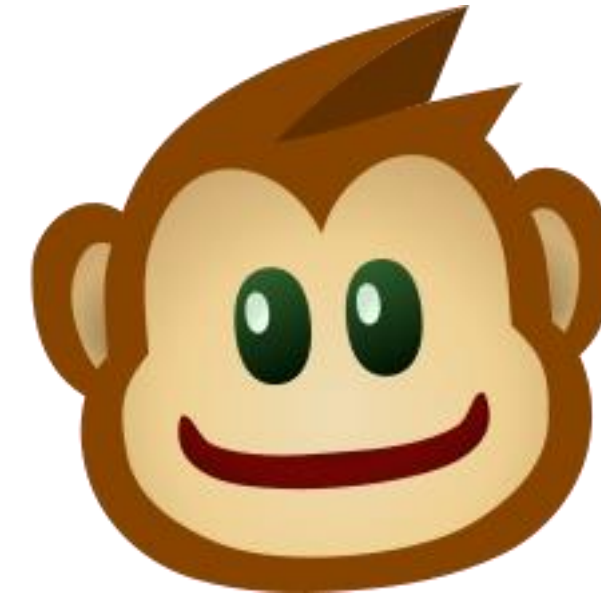
- Dr. John Yap: GP in New Westminster, OSCAR BC president (volunteer). EMR OSP is WELL/KAI. OSCAR BC subscriber. eFORM generator. Wannabe programmer! GreaseMonkey script USER! No financial conflicts.
- Dr. John Robertson: Ob-Gyn in Chilliwack. EMR OSP is OpenOSP. Volunteer OSCAR (OCUS, World Oscar) Librarian. eFORM creator. GreaseMonkey user. No financial conflicts.
- Dr. Stanley Hurwitz: GP in Richmond, amateur programmer. EMR OSP is Juno.



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## What is GreaseMonkey – Wikipedia:



**Greasemonkey** is a [userscript manager](#) made available as a [Mozilla Firefox extension](#). It enables users to install [scripts](#) that make on-the-fly changes to [web page](#) content after or before the page is loaded in the browser (also known as [augmented browsing](#)).

The changes made to the web pages are executed every time the page is viewed, making them effectively permanent for the user running the script.

Greasemonkey can be used for customizing page appearance, adding new functions to web pages (for example, embedding price comparisons within shopping sites), fixing rendering bugs, combining data from multiple web pages, and numerous other purposes.

Greasemonkey was initially met with complaints by publishers for its ability to block ads.



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## But in plain language – what does it really do?

- Change your display – e.g. Lab Row Display, sorted alphabetically
  - Enhance demographic info on the eCHART page
  - Allow for recompilation of multi-line invoices (private and MSP)
  - Create short-cuts – to eFORMS, Measurement Groups, external websites
  - Reduce number of clicks to complete functions
  - Add preset text to input fields (autohotkey, text-expander type function)
- 
- Proof of concept for end-user features that hopefully will inspire the real developers to incorporate into the “trunk” of OSCAR



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## What does an GM script look like? (snippet from “Booking Screen Confirm MRP”)

```
// ==UserScript==
// @name Booking Screen Confirm MRP
// @namespace PMscripts
// @description Highlight if booking with non-MRP
// @include *appointment/addappointment.jsp*
// @require https://ajax.googleapis.com/ajax/libs/jquery/1.3.1/jquery.min.js
// @version 1.0
// ==/UserScript==
```

```
booking = $('div.title').html();
booking = booking.substr(booking.indexOf("(")+1);
booking = booking.substr(0, booking.indexOf(")"));
booking = booking.split(" ");
```

```
MRP = $("div.label:contains('Doctor: ')").next().children().val().split(" ")[0];
MRP = MRP.replace(", ", " ");
MRP = MRP.replace(" ", " ");
```

```
if(MRP.length > 0){
  contains=false;
```

```
  for(i=0; i<booking.length; i++){
    if(booking[i] == MRP){
      contains=true;
      break;
    }
  }
}
```

```
if(!contains){
```

```
  alert("ALERT: MRP Mismatch");
  /*
  var match = document.createElement("div");
```

```
}
```



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## Booking Screen Confirm MRP

Patient Status: **Test** Roster Status: **Test**

**Alert: Name alert. No paper chart; Needs BP check next visit. Pay invoice;**

**MAKE AN APPOINTMENT (John C.P. Yap)**

Date(Mon): 2021-09-06  
Start Time: 08:30  
Duration (min): 15  
Last Name: TEST,ANDY  
Reason:  
Location:  
Creator: Yap, John C.P.

Status: To Do  
Type:  
Doctor: SUPPORT, OSP  
Search: 17284  
Notes:  
Resources:  
Date Time: 2021-09-06 06:24:19  
Critical: ☐

Group Appt Add Appt & PrintPreview Add Appointment Print Add & Receipt Swiped Cancel R

**Demographics** edit Sex: O DOB: (1969-06-15)

Hin:	X987654321
Address:	123 Main Street, New Westminster, BC, V1V 1V1
Phone:	H:604-555-9999 W:604-555-9999
Email:	test_email@pretend.ca
Family Doctor:	
Referral Doctor:	

**Appointment Overview**

Date	Start Time	Provider	Status	Notes
2021-08-30	08:30:00	Yap, John C.P.	Message	
2021-08-21	09:00:00	Yap, John C.P.		
		Yap, John C.P.	To Do	
		Yap, John C.P.		
		Yap, John C.P.		

**[JavaScript Application]**  
ALERT: MRP Mismatch  
OK





# Encounter Screen GM

Problem

Robertson, J-

PATIENT SEAR

Encounter X

DisplayMess

Lab Reports

Dashboa

Webinar

Google C

Launch N

HSAT Val

Downloa

← → ↺ 🏠 🔒 https://

M MRP DR. JOHN ROBERTSON **RABBIT, JESSICA F 43 years** 555-555-5555 Next Appt: Family Links Cumulative Labs OTHER NKDA elp | About OPEN ZOOM

Cell: 16047039988 Addr: 1234 Fifth Street, Chilliwack PHN: 5555 555 55 Age:43 (DOB: 1978-06-15) email: john.robertson@ubc.ca Send email

Preventions +  
YF PHV ... 08-Sep-2020  
TE YF ... 08-Sep-2020  
JE TBE ... 08-Sep-2020  
Td JE ... 08-Sep-2020  
DTdP-IPV-Hib ... 08-Sep-2020  
T DTaP-Hib ... 08-Sep-2020

Tickler +

Disease Registry +

BCCBC Forms +  
BCCBC-WCB ... 28-Oct-2019  
Re BC-AR 2007 ... 29-Nov-2013  
Gr Rourke2009 ... 07-Sep-2013  
Le Growth Charts ... 29-Aug-2013  
e Letterhead ... 16-Jul-2010

eForms +  
AF BCCA Colposcopy Treatment Form ... 18-Sep-2021  
FH ARH Cast Clinic Referral eForm: ... 15-Aug-2021  
FH FHA Specialized Seniors Clinic 2021... 13-Aug-2021  
PP FHA Specialized Seniors Clinic 2021... 13-Aug-2021  
MIPP Maternal Newborn Record Combili... 22-Jul-2021  
D MFM Referral FH PH Jimmie Pattison: ... 17-Jul-2021

Documents +  
te MFM referral ... 25-Jan-2016  
test ... 20-Aug-2013  
co ... 25-Jun-2013  
consult ... 28-Nov-2012  
co ... 28-Nov-2012  
L consult ... 28-Nov-2012

BCCBC Lab Result +  
TR BCCA ... 18-Jul-2018  
OF TRANSCRIP ... 18-Jul-2018  
EF OR ... 17-Jul-2018  
OF ER consult ... 17-Jul-2018  
bc OR LS ... 17-Jul-2018  
m bcca ... 18-Jul-2018

u/ Messenger +  
im u/s ... 06-Jun-2013  
HK imaging form. ... 13-May-2012  
HK HOURS ... 06-Sep-2011  
HK HOURS ... 06-Sep-2011  
HK HOURS ... 06-Sep-2011  
M HOURS ... 06-Sep-2011

Measurements +  
EC CDM Indicators  
EC EDC ... 2021-9-13 13-Sep-2021  
EDD ... 2021-9-13 13-Sep-2021

Social History +  
Social History

Ongoing Concerns +  
prob3  
prob3  
prob3  
prob3  
prob3  
prob3

Medical History +  
Medical History 5  
Medical History 5  
Medical History 5  
Medical History 5  
Medical History 5  
Medical History 5

Reminders +  
HJKAHDKJLASHDIJKAHDLKJ

New eform wildcard search

Search OSCAR Search Filter Calculators Templates

[21-Jun-2021 : Tel-Progress Note]  
Message: test. Please email or phone the office at 604-846-4477 if you have any questions emailed to john.robertson@ubc.ca  
Message: "text. Please Phone the Office at 604-846-4477 if you have questions. Do not reply to this number, it is not monitored." texted to 16047039988  
[Signed on 06-Sep-2021 11:29 by John G. M. Robertson MD CPSID 18077]  
Editors: Robertson, John;  
Assigned Issues  
Encounter Date: 06-Sep-2021 11:29 Rev 1 Enc Type:

[13-Sep-2021 : Tel-Progress Note]  
EDC 2021-9-13 Date  
EDD 2021-9-13 Estimated Date of Delivery  
[Signed on 17-Sep-2021 10:21 by John G. M. Robertson MD CPSID 18077]  
Editors: Robertson, John;  
Assigned Issues  
Colposcopy Treatment form filled out, message sent to Office Staff  
BCCA Colposcopy Treatment Form 2021 V3 : Repeat Colpo in 6 M  
Encounter Date: 17-Sep-2021 10:21 Rev 1 Enc Type:  
Encounter Date: 18-Sep-2021 7:47 View  
Encounter Date: 18-Sep-2021 7:47 View

[25-Sep-2021 : Tel-Progress Note]

Allergies +  
SULFONIMIDES ... 21-Jun-2016  
MORPHINE ... 31-Oct-2012  
TYLENOL REGULAR STRENGTH CAPLE... 31-Oct-2012  
LINE 1 ... 16-Oct-2010  
LINE 2 ... 16-Oct-2010  
LINE 3 ... 16-Oct-2010

Medications +  
None x 120 m Qty:0 Repeats:0  
Exercise! But start by watching this Video h..  
None x 120 m Qty:0 Repeats:0  
Exercise! But start by watching this Video h..  
None x 120 m Qty:0 Repeats:0  
Exercise! But start by watching this Video h..  
Other Meds +  
If I place other medications here do they come up in the left...

Risk Factors +  
Risk Factors  
VBAC Calculator OB Measures  
Gyne Measures Preg Calc  
BMI Lab Req Imaging Path  
Consent Pre Op Tests Booking  
Pre Op Rx Editor New Pt Info  
Pap BCCA MFM Referral Fax  
Info Release Gyne Intake  
OB Intake Colpo NST



[illegible]





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## Schedule Screen GM

Problem loaRobertson, J- XDisplayMessageLab ReportsDashboardWebinar SatGoogle CaleLaunch MeeHSAT VancoDownloads+ - X

←→↺🏠

🔒🔗https://

⋮🛡️★

📺🔗👤📺⬇️📅📄🔍📱⋮

ScheduleCaseloadResourcesSearchReportBillingInbox<sup>14</sup>UMsgConsultationseDocTicklerAdministrationDashboardHelpCorticoJohn Robertson🔌

📅 Sat, 2021-09-25📅 CalendarM-W-1W+M+5D7D10D1W2W3W4W6W1M3M6M1YAll|Today | Month

Enter LastnamGOGroup: .default

07:0007:1507:3007:4508:0008:1508:3008:4509:0009:1509:3009:4510:0010:1510:3010:4511:0011:1511:3011:4512:0012:1512:3012:4513:0013:1513:30



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## What does an eFORM script look like? (snippets from “Kamloops Cardiology Associates”)

```
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

<!-- V1_Jun11_2019: Kamloops Cardiology Associates - created for Exeter Clinic, 100 Mi House; Dr. John Yap -->
<!-- V2_Sep6_2021: major updates to 2021 standards; Dr. John Yap -->
.....
<script>
// For OSCAR to detect what files to include in the generated ZIP, the
// filename must appear in the HTML document within quotation marks, with the ${oscar_image_path} in front of it;
// this serves as a workaround to force the files to be included for ZIP exports.
// Allows for appropriate import of all png files that are not referenced by BGImage tags
// Place any needed image or js file names within the script tabs, inside double quotations, and to the right of the double slashes
// "${oscar_image_path}Kamloops_Cardiology_Associates_referral_form.png"
// "${oscar_image_path}CreativeCommonsIcon.png" // for Copy Left footer
</script>

<!-- Freeform Signatures -->
<script type="text/javascript" src="${oscar_image_path}jSignature.min.js"></script>
<!-- Xbox styling -->
<style type="text/css">
.box1 {
position: absolute;
width: 15px;
height: 15px;
font-size: 15px;
border: 1px solid #000000;
cursor: pointer;
font-weight: bold;
text-align: center;
background: aquamarine;
}
<script language="javascript" type="text/javascript">
/*****
startup functions
*****/
function startUp() {
// new off-line architecture as per K Yap
setDocumentTitle("Kamloops_Cardiology",document.getElementById('PatientNameL').value);
changeImage("Kamloops_Cardiology_Associates_referral_form.png", "BGImage1");
changeImage("CreativeCommonsIcon.png", "CreativeCommons"); // for Copy Left footer


<!-- Patient Info -->
<textarea name="patient_name" id="patient_name" type="text" class="noborder" style="position:absolute; left:175px; top:215px; width:265px; height:34px; font-size:16px; background:white;"
oscardb=patient_name></textarea>
<input name="HIN" id="HIN" type="text" class="noborder" style="position:absolute; left:505px; top:219px; width:190px; font-size:16px; background:transparent;" oscardb=HIN>
```



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## Kamloops Cardiology Associates

**Kamloops Cardiology Associates**  
201 – 300 Columbia St.  
Kamloops, BC V2C 6L1  
Office: 250-318-5083  
Fax: 1-888-841-4013

Stephen Chow, MD, FACC  
Karen Chu, MD, FRCPC

Suman Dhesi, MD, FRCPC  
Shawn Pun, MD, FRCPC

Gursteven Sra, MD, FRCPC  
Jacobus Steyn, MD, FRCPC

**Patient Information:**  
Full Name:  PHN:   
DOB:  \*Phone:  \* Default contact # is home. Click to choose alternate contact phone #  
Default is home

**Refer to:**  
☐ First available Cardiologist ☐ Specific Cardiologist:  Choose   
NOTE: Expect a possible longer wait time for this option

Has the patient seen a cardiologist? ☐ Yes ☐ No  
If 'Yes', include previous consult (if available) and all relevant cardiac investigations.

**Relevant History:**  

Add PMHx  
Restart

**Medications:**  

Add Meds  
Restart

Please attach all relevant investigations (ie. Labs, ECG's, holters, cath reports, OR reports, echo, ETT's, MIBI's, cardiac CT/MRI's, etc). If holter performed outside of RIH, please include strips. Any missing info may result in delays.

Review Labs  
Review Documents

**For all urgent referrals (< 2 weeks), please contact the on-call cardiologist at Royal Inland Hospital.**

Referring Physician:  MSP Number:   
(PRINT NAME)  
Signature:  Date:   
☒ Stamp ☐ Wet Clear Sig

MD Ph:  MD Fax:

Subject:  Reset Print Submit

[Creative Commons License](#) Kamloops Cardiology Associates eForm V2\_Sep6\_2021, by Dr. John Yap, is licensed under a [GPL](#).  
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## Essential GM scripts? Too many!!

- Pagescraper – multiple variations
- eCHART buttons
- eFORM wild card search (even better than the original Awesome Search Box)
- Tickler Set Default, SendTo, Tasks
- Invoice screen
- Calendar Jump – move forward by weeks or months
- Text/eMail with Twilio/MailChimp
- Quick Links
- Not assigned page (InBox)
- Annotation for transcription (InBox)
- Transcription highlight (copy and paste)
- Billing screen defaults (lock Payee, location, etc)
- Demographic copy
- Household Linker
- Invoice screens (multiple)
- Lab Row display (alphabetical sorting)



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That's GREAT! So why doesn't my OSP install them for me?!

The ugly truth:

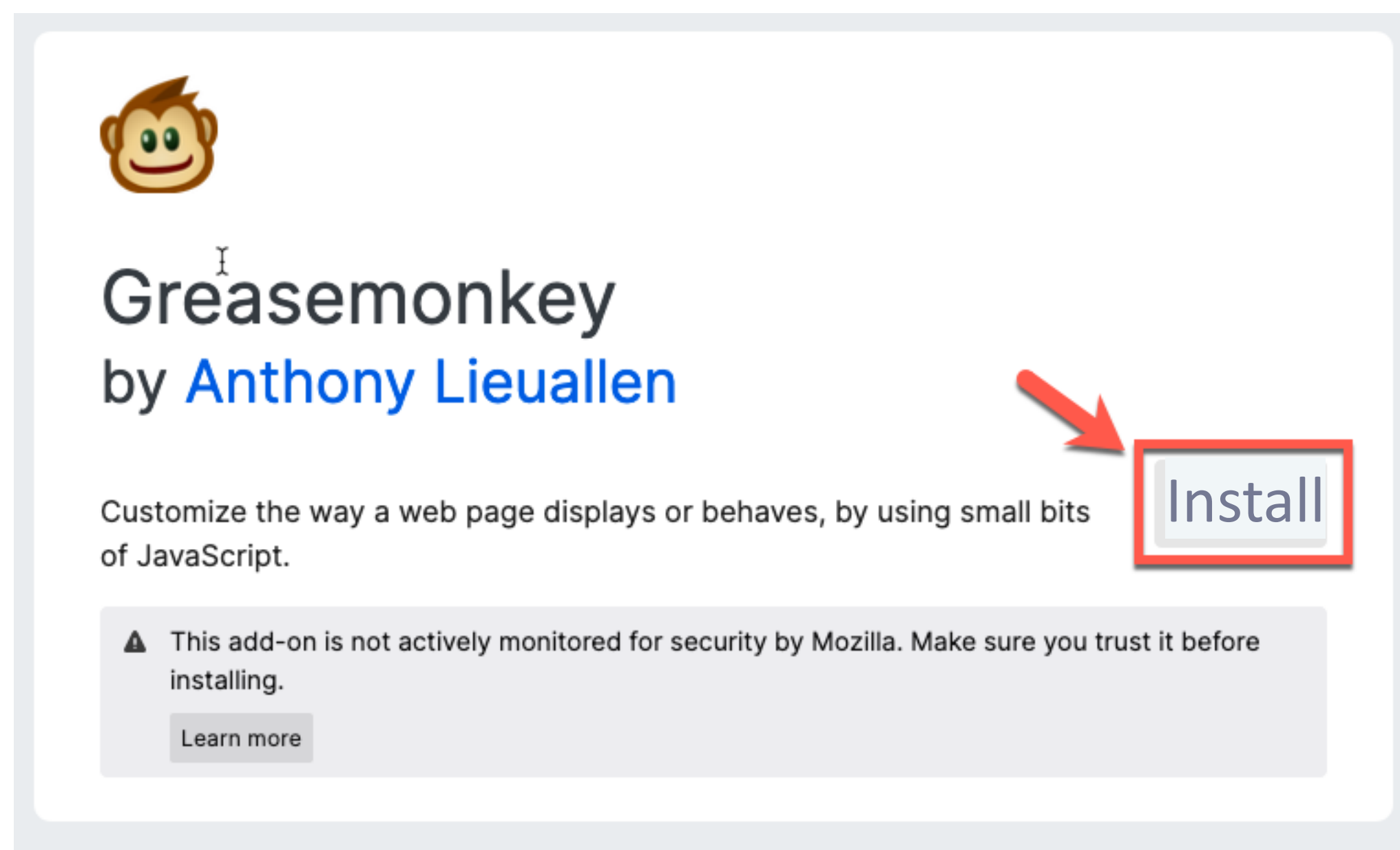
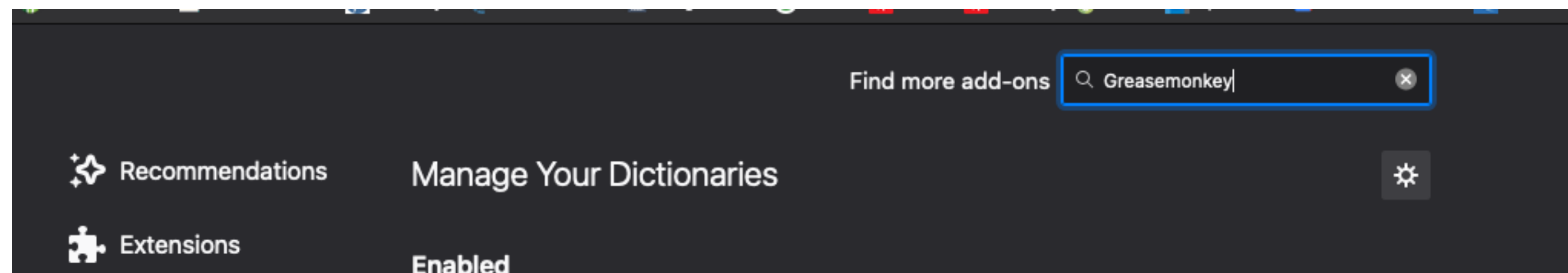
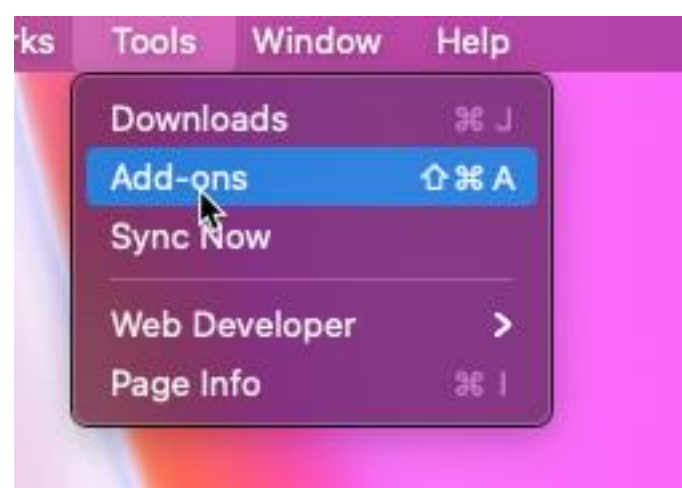
- GM scripts work in FireFox, not in Chrome (Tamper Monkey)
  - GM has been known to fail after FireFox upgrades (security issues?)
  - GM itself upgrades (security issues!) and some existing scripts may fail after upgrade
  - GM assumes all OSCAR instances are the same – they are NOT!
  - Your preferred window size affects how GM displays (position)
  - If there is a problem with your GM script, your OSP is unlikely to assist, because it is OUTSIDE of OSCAR
- 
- All the more reason that these essential features get incorporated into OSCAR for all to use. “It should have been this way in the first place!”



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## Getting GreaseMonkey (Mac view)



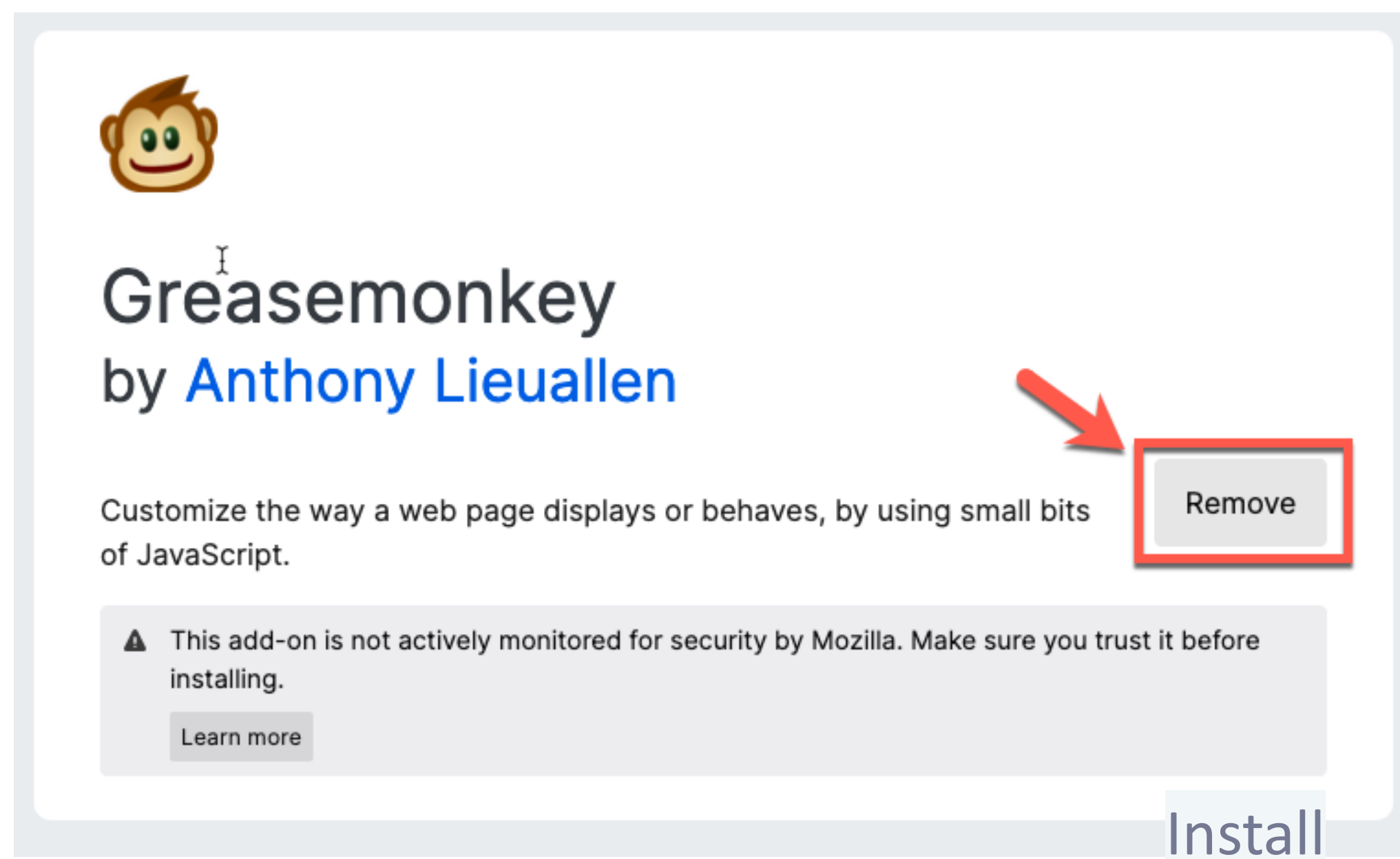




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## Getting GreaseMonkey (Windows view)





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## Getting GreaseMonkey Scripts: the jackpot!

<https://github.com/DrStanMD/Oscar-GM4-scripts>

The screenshot shows the GitHub repository page for DrStanMD/Oscar-GM4-scripts. The repository is under the master branch and has 1,039 commits. The file list includes:

File Name	Last Update
ADHDAdultSmartform.zip	11 months ago
Allergies_7.user.js	14 months ago
AppointmentTextMsg.user.js	2 days ago
BCAR_update.user.js	17 months ago
BMI_calculator_button.user.js	3 years ago
BillingDefaults.user.js	16 months ago
BillingFormDefault.user.js	17 months ago
Billing_Screen.user.js	4 months ago
BusinessCostPremium.user.js	17 months ago
CDM_view_last_billed.user.js	10 months ago

The right sidebar shows the 'About' section with a note to click on the README file for instructions and indemnity. It also shows 'Releases' (No releases published) and 'Packages' (No packages published).



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## Getting GreaseMonkey Scripts: Oscarcanada.org

<http://oscarcanada.org/oscar-users/emr-resource/eform/eforms-in-development-beta-testing/useful-code/greasemonkey-scripts/greasemonkey-scripts-for-gm-4/greasemonkey-scripts-for-gm-4-from-stan-shaw-december-2017>

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About OSCAR

OSCAR Users

EMR and Case Management  
Resources

eForms

eForms for download

eForms in  
development/beta  
testing

Useful Code

4 signature form

Greasemonkey  
Scripts

OSCAR in Tabs

Tools for the Image  
Folder

Prescription module  
add on n to annotate  
all medications

### Greasemonkey Scripts for GM 4 from Stan Hurwitz December 2017

These are updated **greasemonkey** scripts from Stan Hurwitz: ----- GM4 and Firefox quantum – what I've learnt so far ----- 1. GM 4 does not support for each... Use: for (var theOption of theOptions) 2. Legacy scripts such as Vb Trim() will break code (this slipped in on one of my lines). 3. To date GM4 does not support file import or export nor does it support local file import. Files need to be imported one at a time from a remote URL such as Github. 4. GM4 blocks calling a webpage function such as: getComment('ackLab') This needs to be changed to: unsafeWindow.getComment('ackLab') 5. Firefox quantum blocks imports of addons. To temporarily disable import block, see this link: <https://github.com/greasemonkey/greasemonkey/issues/2631> (about:config – security.csp) 6. I have uploaded my GM scripts to Github. Click on the script name then click on RAW link. This will open a GM4 import dialog in Firefox quantum. You will have to uninstall Tampermonkey as the import will default to Tampermonkey rather than GM. <https://github.com/DrStanMD/Oscar-GM4-scripts> Alternatively add a new GM file and then replace the default with the new code. This is uncharted territory. All feedback and comments are appreciated!

#### Allergies\_7

Adds Navigation buttons for NKDA and common allergies, Auto FLUSHOT button

#### BC Antenatal Record Updater

Auto populate BC-AR with measurements

#### Billing\_Screen.user

Set start and end times with one click for time dependent billing codes

#### BillingDefaults.user

Sets the default billing physician and date today when billing from Master screen.

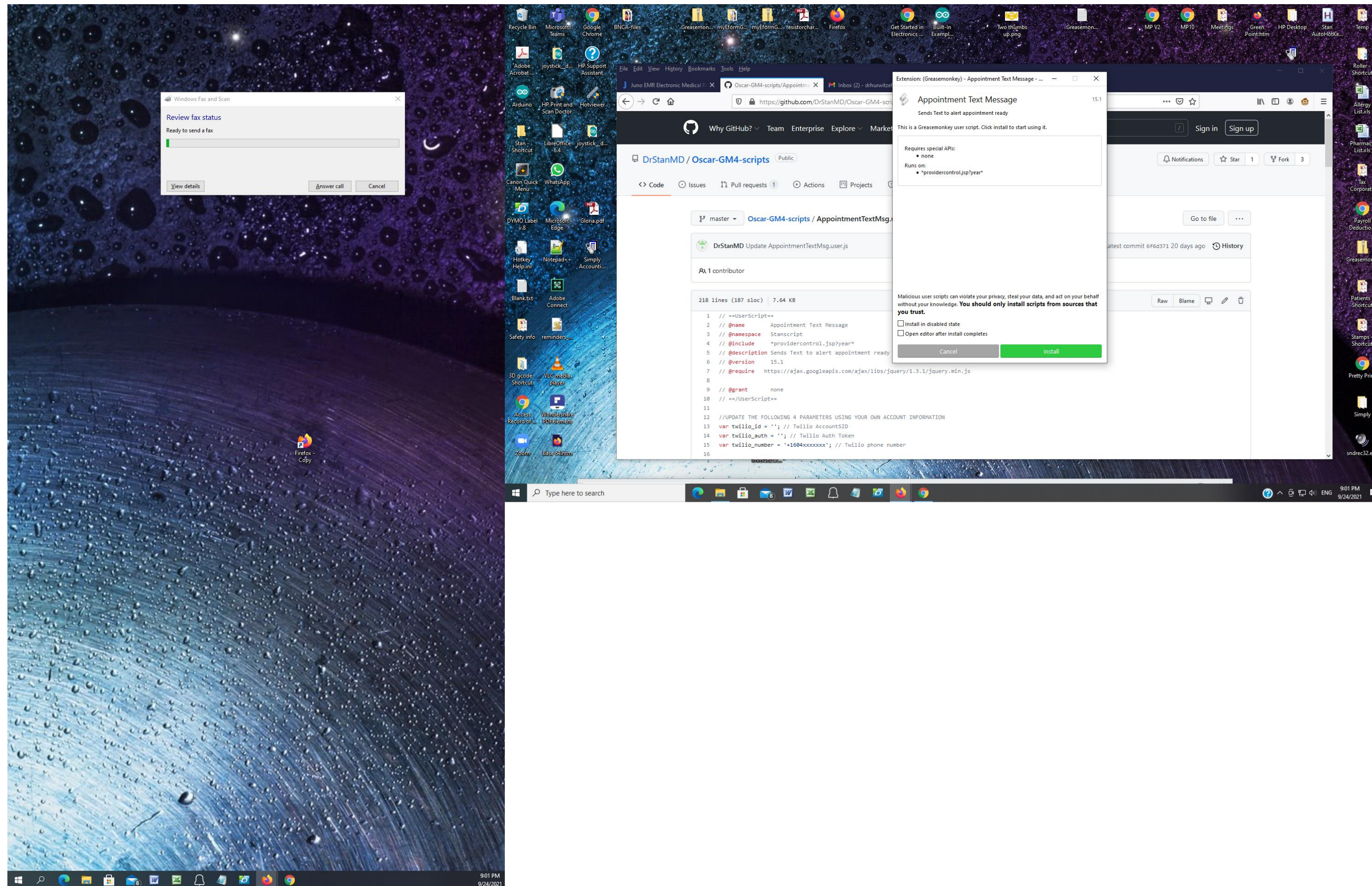




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## Downloading GreaseMonkey Scripts: from GitHub!





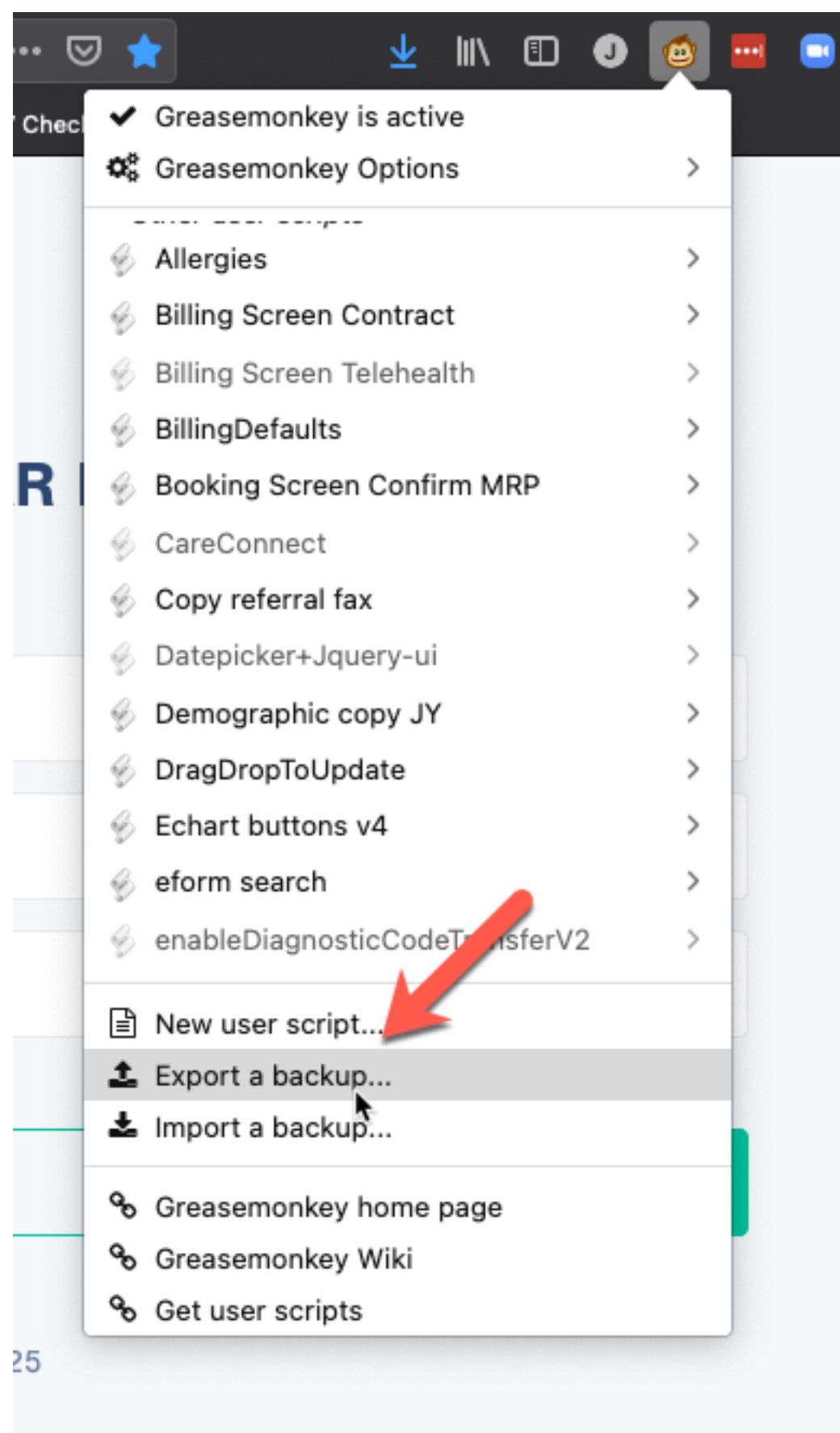


# OSCAR BC

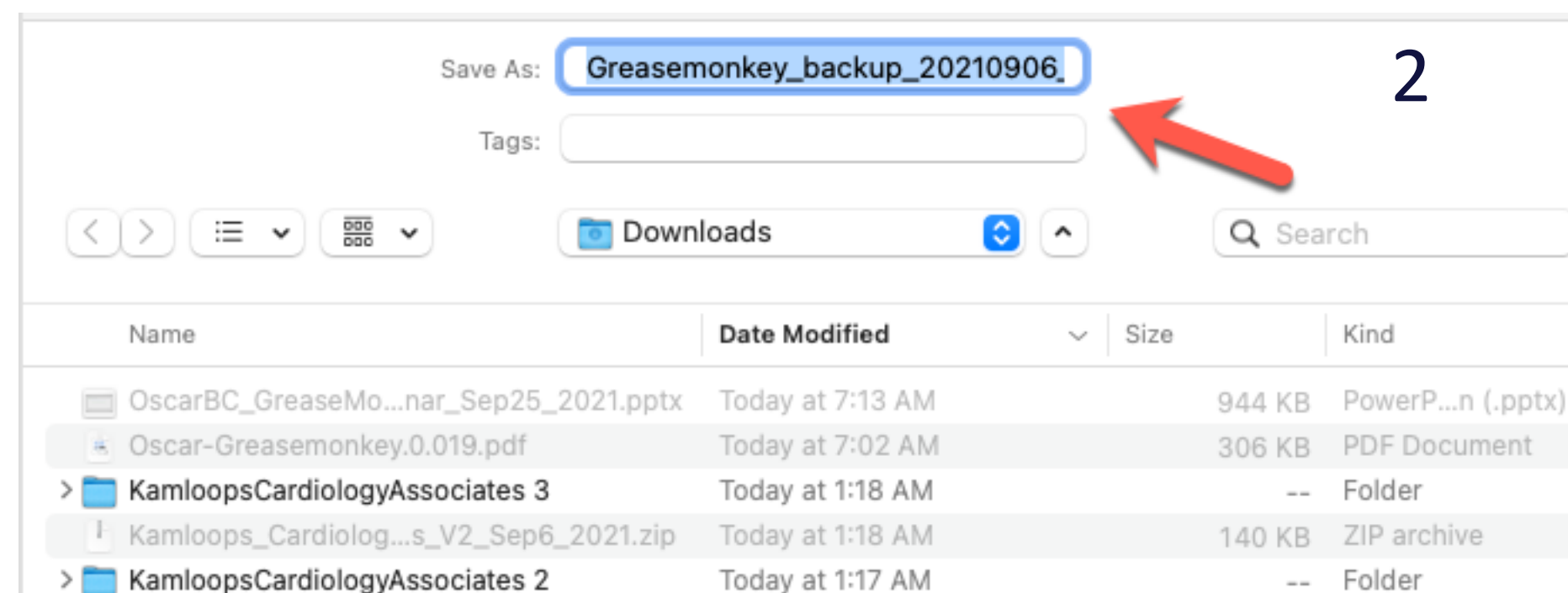
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## Getting GreaseMonkey Scripts: from trusted fellow GM users!

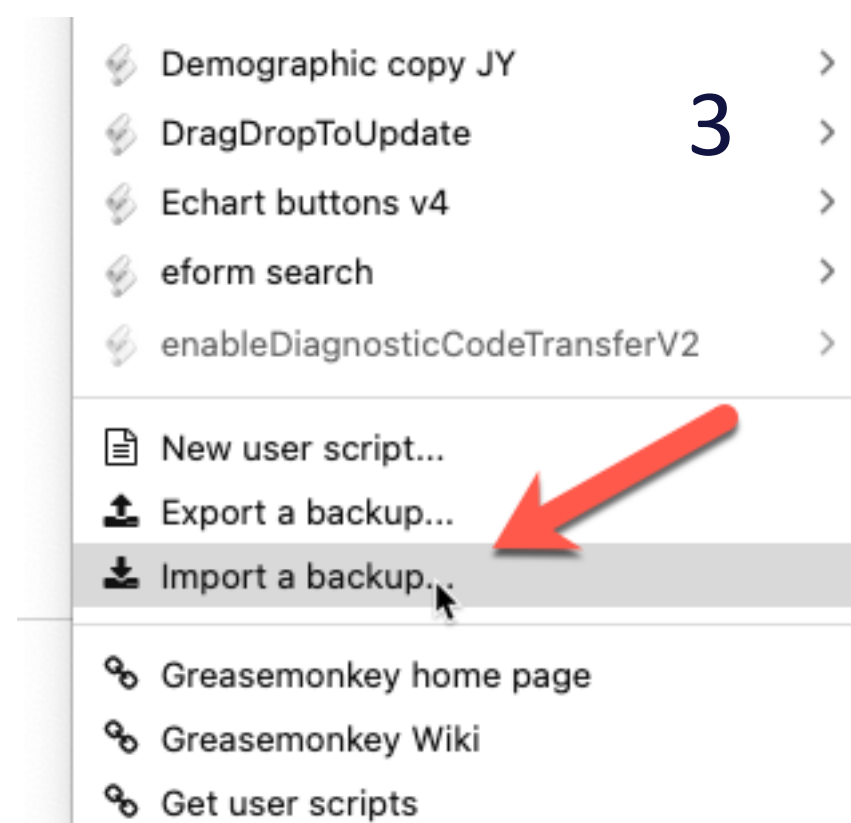
1



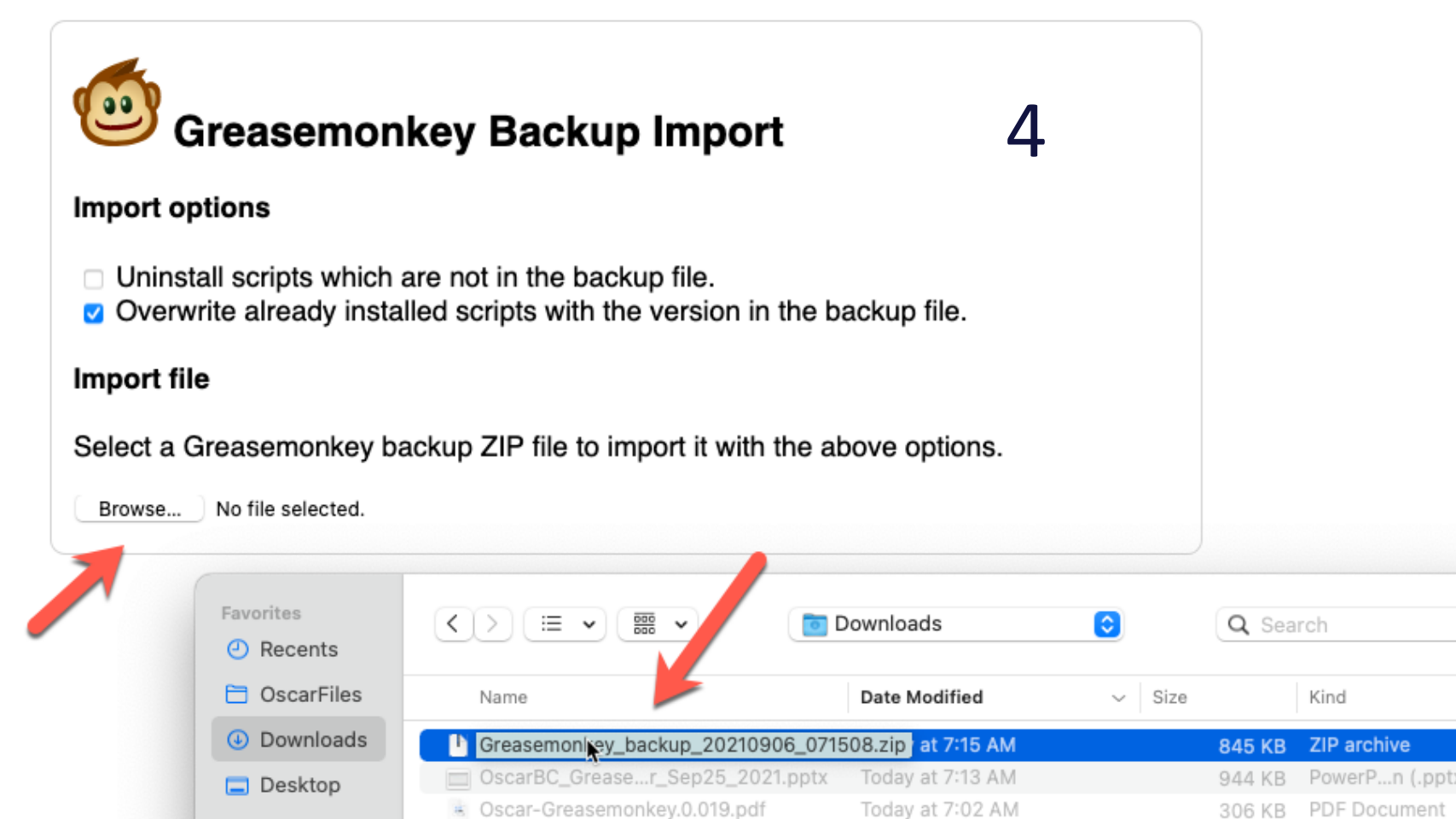
2



3



4



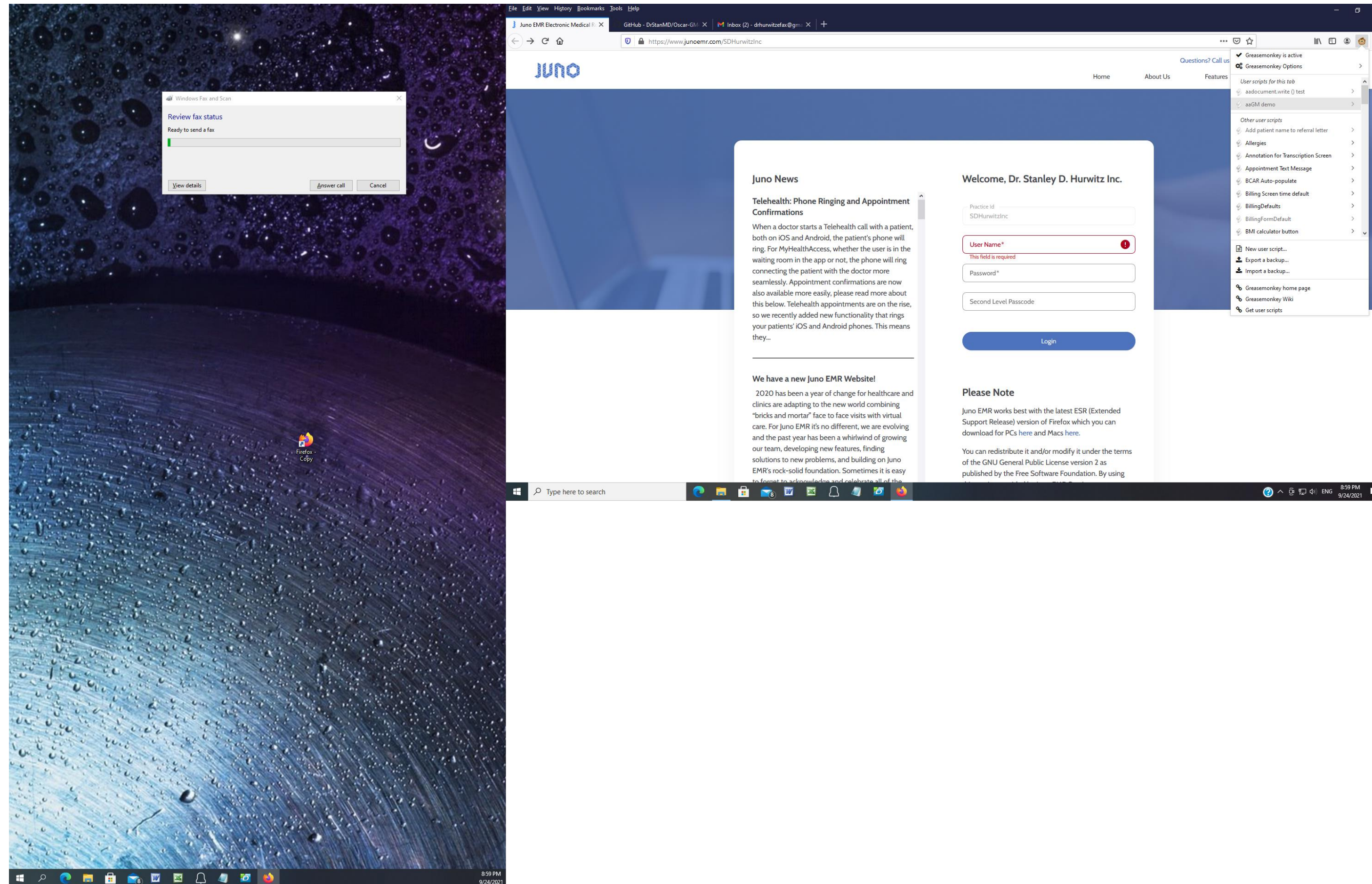




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Your library of GM scripts – under the “monkey”







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Other resources for the GM keepers:

<https://github.com/DrStanMD/Oscar-GM4-scripts/blob/master/Greasemonkey%20Cheat%20Sheet.txt>

<https://www.w3schools.com/js/>

<https://stackoverflow.com/>



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## Demo Time!

- John R, John Y, Stan H

## Simple customizations

- Reposition
- Resize
- Change colour
- Other?



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